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Illustrations OF HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

ST. BARTHOLOMEW'S HOSPITAL.

LARYNGITIS AFTER SNIPPING OFF THE UVULA: LARYNGOTOMY: RECOVERY.

[*From Notes supplied by* W. CHIPPENDALE, ESQ., *House-Surgeon.*]

THE removal of the uvula, when relaxed, was an operation of very frequent occurrence some years ago, when "the antiphlogistic regimen" was the staple of most people's treatment of most diseases, and the great benefit derivable from tonics was less understood. This measure is now not so often necessary, but it is advisable in many cases to free the patient from the constant annoyance which he is suffering by a trifling and easy operation, even in cases where there is no acute inflammation, and where constitutional treatment is the thing principally required. In such a case, it should not be forgotten that the uvula, though in itself a structure of no great importance, is in the neighbourhood of important parts, and that those low forms of serpiginous inflammation so apt to arise in persons of bad constitution and in situations submitted to a tainted atmosphere (and therefore eminently prevalent in our London hospitals), may involve consequences rapidly threatening to life. The present is not the only instance, as we are informed by Mr. Chippendale, in the practice of St. Bartholomew's, in which a similar result has followed this apparently harmless operation. The inflammation which follows such an injury will of course always be limited to the parts above the true vocal chords, and hence laryngotomy will always be sufficient, and recourse need never be had to the more formidable operation of tracheotomy. This fact was, we believe, first clearly pointed out, and its cause (viz., the intimate adherence of the mucous membrane to the vocal chords) insisted on, by Mr. Hewett.

Laryngotomy was performed on a beadle of the Hospital, aged 32, for œdema of the glottis, consequent on the removal of the uvula. He had been suffering from acute tonsillitis for three or four days previously, for which he had been leeched, and had taken antimony. At the time of its removal, the uvula was about an inch and a half in length, and very œdematous, causing much irritation of the glottis, and the efforts to vomit were so constant, that the man was unable to lie down. It had been scarified and cauterised with nitrate of silver, but without much benefit. About three-quarters of an inch were removed. This measure gave immediate relief to the symptoms of irritation, but was followed by great difficulty of swallowing, more especially fluids, which returned through the nose. Laryngeal breathing on a deep inspiration was heard almost immediately afterwards. About three hours afterwards, laryngitis set in with considerable severity, for which he was bled from the arm to thirty ounces, and numerous leeches were applied. He derived so much benefit from these depletory measures, that it was not thought necessary to appoint any dresser to sit up with him during the night. About two A.M., having remained very tranquil up to that time, he was attacked with a most urgent paroxysm of dypsnœa, and fell back apparently dead. The house-surgeon was immediately summoned, and at once opened the crico-thyroid membrane. Artificial respiration by pressure on the ribs, and, by means of the bellows applied to the tube, was resorted to and maintained for more than ten minutes before signs of returning animation appeared. At the time of the operation, the man was to all appearances dead; he was lying on his side; the eyes were fixed; respiration had ceased; no pulse to be felt at the wrist. The sister in attendance estimates that nearly two minutes elapsed from the time that the man fell back apparently dead, to the time of the arrival of the house-surgeon, and judging from the distance that had to be traversed, it could not be much less.

The man remained in a very precarious state for the next two days, the pulse ranging from 130 to 150, but on the third he began to amend.

The tube was finally removed on the eighth day. The wound closed in a fortnight.

LONDON HOSPITAL.

I. LARGE SCALP-WOUND: RAPID RECOVERY UNDER THE USE OF SUTURES.

Under the care of JOHN ADAMS, Esq.

[*From Notes by* F. OWEN, ESQ., *House-Surgeon.*]

THE question of employing sutures in scalp-wounds is one on which the practice of modern and ancient surgeons presents a strong contrast; for, while this was the favourite practice up to the last generation, it is now usually considered, as a general rule, bad surgery. Still there are, no doubt, cases in which the employment of sutures is attended with the most signal advantages, and in which there are clear indications for employing them. In the case which we append, all these indications seem to have been united. The immense size of the flap of the scalp turned back by the wound would have produced traction, which would have rendered it difficult to keep the wound in apposition by strapping; the situation of the wound near the most convex part of the skull would have further increased this traction; while the slight injury done to the bone made it advisable to produce union quickly, if possible; and the age and perfect health of the patient rendered this result likely, and an attack of erysipelas less to be apprehended than in the case of an adult. The result was most gratifying—one of the largest and most formidable scalp-wounds which can be imagined having entirely healed in about a week.

John B., aged 14, a sailor boy, was admitted into the London Hospital on September 12th, under the care of Mr. Adams, in consequence of a severe laceration of the scalp, caused by falling down the hold of a ship, a height of twenty-one feet. The occipital bone was exposed to some extent (the wound being situated rather behind the position of the coronal suture), and was bruised, a few spicula being apparently separated; but there was no fracture perceptible. The head was shaved, and the edges of the wound carefully brought together by the aid of six sutures, with strips of wet lint and bandages. Milk diet and beef-tea were ordered.

Next day he was rather feverish, for which a purge and saline medicine were given; and on the following day, as the bowels had not acted, the purge was repeated.

Two of the sutures were removed on September 15th. The

wound was healing. Better diet was now given; and, on the sixth day, the remaining sutures were taken out. The wound had now almost entirely healed, and on the tenth day the boy was discharged, the wound having healed quite soundly in its whole extent.

II. COMPOUND DISLOCATION OF THE GREAT TOE: ERYSIPELAS: USE OF COLLODION.

[*From Notes by* F. OWEN, ESQ., *House-Surgeon.*]

The following case afforded a good instance of the action of collodion in limiting the extension of erysipelatous inflammation—a purpose for which it is largely used now in several metropolitan hospitals. In the London Hospital, it has become a favourite plan to paint the outer edge with a layer of this substance, in the same way as, some years ago, nitrate of silver used to be employed. The success, however, is said to be much greater than with the latter plan. In fact, we can hardly charge our memory with an instance, out of a great number of cases which we have seen, in which the erysipelas has respected the boundary made for it with the caustic, while the collodion is said to succeed in a very large proportion of cases.

The case is also interesting, surgically, on account of the very free movement left after a compound dislocation, notwithstanding the occurrence of erysipelatous inflammation and abscess in the neighbourhood. The recollection of such facts may prove an addditional encouragement for endeavouring to save parts of the hand which are even more necessary to comfort than the important portion of the foot involved in this injury, and which besides, being more fully supplied with blood, enjoy, as it is reasonable to presume, an even greater power of perfect reparation.

Edward C., aged 26, was admitted into the London Hospital on July 30th, on account of a compound dislocation of the metatarso phalangeal joint of the great toe, caused by a horse falling with him. The wound was on the plantar aspect of the foot, and the head of the phalanx was dislocated inwards towards the middle line. The dislocation was easily reduced, and the wound was then brought together with sutures and strips of wet lint. A composing draught was given.

Next day a little inflammation showed itself. On the third day the sutures were removed, the foot being still red and swollen. On the following morning, erysipelas had appeared, and spread up to the ankle. Collodion was applied around the edges of the inflamed part, and spirit lotion was ordered.

August 4th. The discharge from the wound increased, and matter was forming on the dorsum of the foot; but the erysipelas had evidently receded. Three incisions were made, on August 9th, on the dorsum of the foot, with much benefit. The original wound now began to heal, and the patient from this time recovered steadily, but slowly, his convalescence being retarded by an attack of ague—a disease to which he had lately been subject, and which left him very weak, and no doubt delayed the reparative process.

He was discharged cured on September 19th. There was then slight pain in moving, which was increased by walking; but he could walk tolerably without a stick, the foot and ankle being supported by strapping.

ST. GEORGE'S HOSPITAL.

I. HYSTERIA: IDIOPATHIC PERICARDITIS.

Under the care of H. B. JONES, M.D.Cantab., F.R.S.

[*Communicated by* G. G. ROGERS, M.D., *Medical Registrar.*]

S. M., aged 17, a servant of all work, had been suffering from violent hysterical fits for nearly a fortnight previous to admission. She came to the Hospital on the morning of August 15th, complaining of palpitation and rising in the throat. The case was looked upon as one of hysteria simply, and treated accordingly with valerian, etc. There was no history of rheumatic fever; and the catamenia had always been perfectly regular. She continued to complain of the palpitation; and on August 18th, said the pain in the left side was like a dagger running into her. On placing the hand over the præcordial region, no undue action of the heart was felt; but when the stethoscope was applied to the apex, a loud rough exocardial sound was heard, which occasionally corresponded with the systole. The pain increased, and was aggravated by the least movement. She was put to bed, and treated with calomel and opium; a blister being put on the left side. There was much globus hystericus at intervals, and such exaggerated descriptions of her symptoms as rendered the treatment of the case not a little perplexing. On the following day, the murmur was still very audible. Her countenance was distressed, and she lay in the supine posture afraid to move a muscle. The same plan of treatment was pursued, and the pain slowly diminished in severity. On the 21st, she could breathe freely, but deep inspiration caused agony. The first sound of the heart was then masked by a peculiar *churning* sound; and accompanying the second sound was a singular wavy vibration, difficult to describe, but unmistakable by those who happened to examine the patient. These singular additions to the sounds of the heart were not noticed on August 22nd. Her pulse was then quiet, the secretions healthy, and the mercury was discontinued. During the night, she experienced some returns of the præcordial pain, but derived instant relief each time from turning on her left side. After this date, bitter tonics were prescribed; and she quitted the Hospital on August 30th, in comfortable health.

REMARKS. The cases in which we meet with pericarditis not associated with acute rheumatism are few and far between; and I do not remember to have witnessed one at St. George's where such marked hysteria coexisted. The history of palpitation for some days before any pain was felt in the præcordial region, strengthens the explanation given of this symptom by Dr. Graves; viz., that the increase of energy in the heart's action indicates some amount of inflammation in the muscular structure itself before the membranes participate in the disease. It is worthy of inquiry whether the violent hysterical fits with which this girl had been attacked prior to her admission, were not owing to some embarassed action of the heart, secondarily modifying the circulation through the blood-vessels of the brain, and causing convulsions. It would be absurd to class this case with the well marked ones which abound in our medical works of carditis, and the subsequent (misnamed) "metastasis to the brain". Yet, if in acute rheumatic carditis, delirium, mania, or coma, supervene in men of strong nervous power from the above mentioned causes; the same inflammation, milder in its character, and perhaps at first not appreciable by the physician, would act on a nervous hysterical girl, and produce less formidable cerebral symptoms.

This case may serve as a beacon to those who are sometimes apt to pay no attention to the complaints of their hysterical patients. Pain in the left side (a favourite ailment of this class of females) is ninety-nine times out of a hundred no pain at all. But should it constantly be the affection on which the patient dwells, the practitioner will act wisely in not omitting to use the stethoscope.

II. SOFTENING OF BRAIN: DISTENDED VENTRICLES: PHTHISIS.

Under the care of H. PITMAN, M.D.Cantab.

[*Communicated by* G. G. ROGERS, M.D., *Medical Registrar.*]

A. B., aged 15, a blacksmith's apprentice, was admitted on April 29th. He had been ill nearly eight weeks with what his friends designated "low fever". When admitted, he was suffering from frequent sickness. The pulse was very weak, tongue loaded, and breath extremely offensive. There was considerable photophobia, and some heat of the scalp; but the pupils acted properly, and there was no strabismus. His bowels had not been moved for four days; and it was hoped that free purgation would check the irritability of the alimentary mucous surface. But after the action of the bowels, the vomiting continued unabated, and constituted the chief symptom to which attention was directed for some time. When asked to name the seat of pain, he invariably pointed to his forehead, the skin of which was usually corrugated. His eyes were generally closed, and his head bent down under the bedclothes, until his chin nearly touched his chest. And from this position it was very difficult to remove him, on account of his extreme irritability. Blisters were applied behind the ears, and calomel was given, at first alone, but afterwards combined with opium, until the gums were very sore; but no relief whatever was obtained as regarded the frontal pain. Iodide of potassium, iodide of iron, cod-liver oil, and a host of tonics, alteratives, and stimulants, were successively tried; but all the symptoms remained as before, except that the irritable condition of the stomach was lessened. The pupils were very sluggish, and his countenance often wore a look of extreme distress. The lad wasted rapidly; but to the surprise of all who watched the case, and knew how little nourishment he could

take, he continued to live, worn almost to a skeleton, until August 24th, four months from the time of his admission.

The body was examined twenty-five hours after death. The skull was large and dense. There was an increased quantity of subarachnoidean fluid, and a generally "wet" brain. The ventricles were distended with fluid, and the septum lucidum destroyed. There was no tumour or morbid deposit in any part of the brain.

Old pleural adhesions existed on the left side, and at the apex of the corresponding lung was a mass of crude tubercle, an inch and a half square. All the other thoracic and abdominal viscera appeared to be of less size than usual: the heart weighing only three ounces; the spleen one ounce; and the kidneys five and a half ounces. In other respects, these organs were healthy.

Remarks. The chief peculiarities in this case were the absence of many of the symptoms characteristic of *ramollissement*, and the non-appearance of tubercular disease in the brain and its membranes, although the lungs were not free from scrofulous deposit. From these circumstances, it contrasts well with the history and *post mortem* record of the following patient.

III. STRUMOUS TUBERCLE OF CEREBELLUM AND MEDULLA OBLONGATA: PHTHISIS.

Under the care of H. W. Fuller, M.D.Cantab.

[*Communicated by* G. G. Rogers, M.D., *Medical Registrar.*]

B. S., aged 6, came to the Hospital on May 6th with slight fever and headache, supposed to have been caused by the mother having given him an over-dose of treacle and laudanum. After a purge and a course of tonic medicines he got quite well to all appearance, and was ordered to leave on June 17th. But on the evening of that day, when getting out of bed, he suddenly complained of violent pain in the occipital region, and was seized with trembling in all his limbs, and great want of control over the lower extremities. When seen after being placed in bed, there was ptosis of the left eyelid, with great dilatation of both pupils, and the tongue was protruded to the left. All this time he had never exhibited the least sign of any chest affection. Respiration was performed easily, and there was no cough nor expectoration. The neck was blistered; and a drachm of citrate and acetate of potash, with five minims of tincture of cantharides, was given every six hours. Six days later the ptosis of the left eyelid was far less marked, but the uncontrollable shaking and tottering came on the moment he was made to stand on the floor of the ward. A week later (June 30th), he was affected with almost incessant hiccough, and his appetite, which had hitherto been pretty good, completely failed him. The urine was quite free from albumen. It had a specific gravity of 1010, and exhibited, under the microscope, a few crystals of urate of ammonia. On the 4th of July the gums were tender from calomel, which he had been taking in two-grain doses twice a-day for nearly a week. At this time another blister was applied to the nape of the neck. His symptoms assumed a more favourable appearance; the hiccough subsided; his appetite returned; and he could sit up a little, although the shaking was never entirely absent, when he was moved out of bed. On July 11th, the hiccough returned, and the trembling of the limbs increased much. He now began to waste rapidly, and refused his food, saying that it gave him such pain when he attempted to swallow. Cod-liver oil, calumba, and port wine, were ordered with good effect; and on the 21st he again took all kinds of nourishment with relish. But he was losing flesh daily, and had much pyrexia and thirst. The bowels for the most part were constipated, the scanty stools being green and very offensive. On the 29th he could swallow nothing but a little wine and water; violent hiccough came on late at night; and after thirty-six hours of great suffering he expired.

An examination of the body was made twenty-two hours later. On opening the head, the convolutions of the brain were found much flattened, and the ventricles were full of clear fluid. The fornix was also softened, and in the substance of the right lobe of the cerebellum was a large strumous tubercle of about the size of a walnut. Another similar but smaller mass was found in the medulla oblongata. The surrounding nervous substance in the neighbourhood of the tumours was healthy.

The apices of both lungs were full of crude tubercles, and riddled with numerous vomicæ, some of large size. The lower part of the left lung was hepatised.

The kidneys were large, pale, and flabby, and the stellate veins on the surface were beautifully marked. The microscope failed to detect any disease of the renal tubes. The other viscera appeared healthy.

Remarks. Here is an excellent example of the latent form which phthisis sometimes assumes. With respect to the cerebral disease, the autopsy exactly confirmed Dr. Fuller's admirable diagnosis; but the mischief going on in the lungs was unsuspected by all: at least it was never thought that more than a few scattered tubercles would be found. Although the left lobe of the cerebellum was unaffected, the disordered movements manifested themselves equally on both sides of the body, which is contrary to the effects noticed by Magendie and others in their experiments, and rather strengthens the supposition of M. Foville, that the cerebellum is "the organ through which the mind acquires that knowledge of the natural state and position of the muscles, which is essential to the exercise of the will upon them."

Dr. Watson, in his thirtieth *Lecture*, calls in question the absolute truth of Andral's statement, that in *cerebellar* effusions the palsy is confined to the side on which such effusion occurs; and gives as his own opinion, "that as facts multiply, the conjecture will be found to be a different one."

The limitation of the paralysis to the third and ninth pairs of nerves, and the subsequent involvement of the eighth pair, causing pain and difficulty in deglutition, accompanied by continuous hiccough, show, in a marked and interesting manner, the gradual progress of the scrofulous growth. The palsy of the eyelid, the dilatation of both pupils, and the protrusion of the tongue towards one side, which were dependent also upon serous effusion into the ventricles, lead one to inquire whether this case was not originally one of the many forms of what Dr. Graves, in his first volume of *Clinical Medicine*, calls "chronic scrofulous fever"; a disease intractable in its nature, generally connected with head symptoms, and often leading to the deposit of scrofulous matter in various parts of the body.

IV. TUBERCLE OF THE CEREBELLUM: PHTHISIS.

Under the care of H. B. Jones, M.D., F.R.S.

[*From Notes by* G. G. Rogers, M.D., *Medical Registrar.*]

John R., aged 4, was admitted on June 17th, under the care of Dr. Bence Jones. He had been born and reared at Gibraltar till six months before admission. A month after arrival in England he was observed to be wasting, and to become fretful and irritable. Three months later, epistaxis and cough were noticed. Next his abdomen began to swell; he complained of pain in his head, and moaned in his sleep. On admission, the pulse was thready, and beat 146 in a minute; the tongue was coated, and the face very pale. The liver was much enlarged. There was considerable dyspnœa; respiration 60 in a minute. Both eyes exhibited marked convergent strabismus. He was treated at first with small doses of calomel and magnesia at bedtime, and put on nourishing diet.

On June 18th, epistaxis occurred to the extent of half a pint. He had more cough the next day or two, and spat up thick mucus, not tinged with blood. The chest was carefully examined, but nothing was detected on this or various subsequent examinations. Five grains of gallic acid were given every six hours. The bleeding recurred on the night of June 24th, and again on the 28th, to such an extent, that it was necessary to plug the nostrils. Ice was applied, and the dose of gallic acid increased to ten grains.

On July 7th, acetate of lead, with acetic acid, was substituted for the gallic acid; and this seemed to produce some temporary improvement, as the bleeding stopped, and his lips regained their natural colour, but it recurred on the 10th and 11th. He now became much exhausted, and began to refuse food and medicine. The bleeding recurred frequently.

On the 25th it is noted that the blood was thin and poor, and lighter in colour. On September 6th convulsive attacks came on, and increased in violence during the next three days. He then fell into a comatose condition, in which he lay for two days, and died on September 11th.

Post mortem examination showed extensive strumous deposit in various organs. The ventricles of the brain were distended with serum, and its central structures so softened as to be quite diffluent. On the lower surface of the right hemisphere of the cerebellum was a strumous tubercle, the size of a large pea, imbedded in the substance of the organ just below the pia mater. The lungs were studded throughout with a copious deposit of miliary tubercles. There were no vomicæ, and the

substance of the lungs looked otherwise healthy. The bronchial glands contained large masses of crude tubercle. The glands in the gastro-hepatic omentum were similarly affected. The liver contained a copious deposit of miliary tubercle, as did the spleen. The other viscera seemed healthy.

Remarks. Of all the varieties of strumous disease which directly threaten life, there is none more insidious than its deposition on the brain, unless, indeed, it be that in the suprarenal capsules. We have often seen its presence proved by *post mortem* examination in cases where it seemed impossible to determine from the symptoms what the brain disease was, or, indeed, whether it were not merely functional disturbance owning some remote cause, and accompanied by no organic lesion; still oftener we have seen its absence demonstrated where it had been pretty confidently predicted. Hence it may not be useless, as a matter bearing on diagnosis, to study the two cases (III and IV) quoted above, even though the disease is beyond our present methods of treatment. In the first, so constant were the symptoms, and so distinct the functions which were interfered with, that Dr. Fuller was enabled, even without the evidence usually furnished by the presence of strumous disease in other organs, to indicate the nature and seat of the disease during life. The persistence of the same symptoms, and the evidence of pressure on one limited portion of the brain, denoted the presence of some solid deposit: the age of the patient, his appearance and constitution, with the history of the case, rendered it highly probable, at any rate, that this was of the nature of strumous tubercle. The well marked symptoms of loss of the power of co-ordinating motion afforded by the persistent tremor, the loss of control over the limbs without loss of motion, and the pain constantly referred to the occipital region, pointed to the cerebellum as, at any rate, one seat of this lesion; while the constant hiccough, and the interference with swallowing, rendered it likely that the deposit would also be found in that part of the encephalon which presides over the functions of respiration and deglutition. In the other, the symptoms were less distinct, probably because, on account of the smaller size of the tumour and its less central situation, it interfered less with the functions of the organ. Still the persistence of bleeding from the nose pointed to some morbid action in the head; and the convulsions were symptomatic of an irritation which might very probably have been referred to tubercle in some part of the brain; and the more so, had the symptoms of tuberculosis of other parts been more marked. In both, it will be seen that extensive phthisical disease was present, but latent: in the first, doubtless more accurate knowledge of the previous course of the complaint would have furnished a motive for the physical examination of the chest which could hardly have failed to elicit clear evidence of the presence of cavities in the lungs. The disease, however, with that mysterious inconstancy so characteristic of phthisis, was for the present quite in abeyance, and entirely subordinated to the still more urgent cerebral mischief. In the second case, the deposit, though copious enough and frequently searched for, did not reveal itself by any sounds audible to experienced ears—a fact by no means singular, and which has recently been the text of a controversy on the question of the alleged possibility of diagnosing phthisis in its early (even pretuberculous) stage, which is doubtless fresh in the minds of the readers of this Journal.

CITY DISPENSARY.

PHTHISIS (DOUBLE), FATAL BY MORTIFICATION OF THE PORTION OF OUTER CHEST-WALL CORRESPONDING TO AN EXCAVATION IN THE LEFT LUNG.

Under the care of John Cockle, M.D.

Elizabeth Bergman, aged 23, unmarried, of sedentary occupation, residing at No. 5, Peter's Hill, Doctor's Commons, was admitted a patient of the City Dispensary in July last. "About eight months ago she caught a severe cold, from exposure to the night air, and has since suffered from cough, dyspnœa, pain in the side, accompanied with emaciation, debility, and night perspiration. On physical examination, the ordinary signs of excavation existed below the left clavicle, and below the right clavicle marked signs of disease in an earlier stage."

During the subsequent progress of the case, considerable but varying effusion of the lower extremities was noted, as also a far greater amount of dysphagia than is usually observed. In the early part of the present month, she suddenly became restless, and at times delirious, the delirium being of mild form. When visited, a gangrenous spot was observed just below the left clavicle, which gradually spread during the two succeeding days over a surface about equal in extent to the palm of the hand. The fœtor, evidently arising from this surface, and not from the sputa, was intolerable.

Death from collapse occurred on the fourth day from the appearance of the gangrene. No *post mortem* examination was made.

This case is briefly detailed principally to illustrate the mode of its termination, which may, without doubt, be considered one of the very rarest occurring in cases of phthisis.

Original Communications.

ON INTRAUTERINE FRACTURES: WITH AN ILLUSTRATIVE CASE.

By T. Herbert Barker, M.D., F.R.C.S., Bedford.

[*Read before the South Midland Branch, May 21st*, 1857.]

Amongst the various singular phenomena which are ever and anon presenting themselves to the practitioner of medicine, none are more interesting, either in a physiological, practical, or pathological point of view, than those which bring before him the abnormal conditions of the animal body during the period of its intrauterine existence. A shadow of mystery overhangs, and must always overhang, these departures from the normal course of things. If it is impossible to trace out with accuracy the physical and chemical changes which the body of the born animal undergoes, as it is before us, and as it submits itself to our physical and chemical inquiries, how much more difficult is the task when the body is excluded from observation, and while the physiological laws, incident to the intrauterine state, are but dimly seen by those who look most keenly and with the broadest cast of thought on the problem of life in its simplest as well as in its more complicated manifestations.

It would be a hopeless task for me to attempt an elaborate description or speculation on any one of the numerous and debateable, and debated points, connected with the subject of fœtal development, either in its normal or abnormal conditions. I am not prepared for such a display of scientific skill, nor does the bent of my studies or pursuits strengthen me for such an effort. But a simple observation of natural facts always admits of being explained to others in a simple and natural manner; and as facts thus pourtrayed are never without their value, as they form capital on which other minds may draw, and as nothing positive could be made known in science without the evidence of facts, I have thought that the history of a fœtus born with its osseous framework in a very dilapidated condition, may deserve to be placed on permanent record in the literature of medicine.

Case. In the month of September 1856, I attended Mrs. L., of Bedford, in labour. It was her fourth confinement. Her three previous children had been delivered safely, and had shewn no peculiarities. The woman herself was healthy; had no sign of cancerous or tubercular diathesis; had no sign of osseous softening; had not suffered from syphilis. During pregnancy, her health had been good. Her dietary had been in no respect peculiar. She complained that during this pregnancy she had felt differently than on any other occasion; and that the movements of the child had been exceedingly feeble, although she had been of unusually large size.

Owing to the circumstance that the stairs leading to her bedroom were difficult to ascend and descend, she had fallen several times, and on one occasion fell down the length of the staircase, alighting on the back of a chair with her entire weight on the abdomen.

Such were all the particulars, constitutional and accidental, relating to the mother. The father of the child was healthy; he had not suffered from syphilis; he was not the subject of cancerous nor of tubercular disease. On neither maternal nor paternal side was there any hereditary tendency to congenital malformation.

At the period when the labour came on, Mrs. L. believed

herself to be at least six weeks from the full period of utero-gestation; the evidence of this was, however, doubtful.

The general symptoms of labour came on sufficiently naturally, and the membranes presented in the ordinary way; but, after they had ruptured, I was surprised to feel a large round soft mass presenting. Speedily the head was born, and resolved itself into the soft mass referred to, its softness apparently depending on an entire absence of cranial bones. The body soon followed; and the limbs, as they passed through my hands, were felt to crepitate on the least movement. The child (a female) breathed, and opened its eyes, but never cried. It lived about ten minutes only.

On examining this fœtus more closely after death, I noted in its conformation the following appearances. The head was preternaturally large, very round, and soft. No suture-lines could be traced, and no bones could be felt through the scalp. The limbs were very deformed and preternaturally short. The length of the fœtus, from the top of the head to the toes, was sixteen inches. The length of the body, from the upper part of the sternum, and level with the shoulders, to the crest of the pubic bone, was seven inches. The length of the arms was four inches; and the length of the lower limbs, along their outer curved surface, four inches. The eyes were widely separated, there being at least one inch and a half from one inner canthus to the other inner canthus. The nose was short and flattened; and the tongue partly protruded from the mouth, as though the latter were too small to contain it.

The right humerus was broken about its middle; and the right radius and ulna, at the junction of the middle and lower thirds, were in the same condition. The extreme phalanx of the right thumb was considerably elongated. The joints between the first and second phalanges of the fingers were enlarged, particularly that of the second finger.

The left humerus was fractured rather above its middle, and also the left radius and ulna about the junction of the middle and lower thirds. The left thumb was elongated; and the distal phalanges of the fore, middle, and ring fingers of the left hand, were wanting. The distal phalanx of the left little finger was considerably curved inwards.

The right femur appeared (from crepitation) to be fractured in its upper third, and the right tibia and fibula about the middle of the leg. The right patella was seen to be very prominent. The toes of the right foot were long, and much longer than those of the left foot.

The left femur was fractured about its upper third, and the left tibia and fibula slightly below the middle of the leg. The left patella was not so prominent as the right.

The clitoris and labia interna were preternaturally developed and prominent.

Such were the dimensions and external appearances of the fœtus. The breadth of the shoulders and of the hips was natural, and the circumference of the head was equally normal. There was nothing either in the size of the fœtus, or in the contraction of the maternal passages, that in any way could have given rise to unusual compression. The labour, in a word, was in every sense easy and ordinary.

Having an opportunity of obtaining the fœtus, I removed it, and took a photograph of it while in the fresh state. This has been engraved by Mr. Bagg with great exactness. The peculiarities just detailed are well represented in the accompanying woodcut; and the seat of the several fractures is indicated by the asterisks. (See fig. 1.)

Dissection. On dissection, with the exception of the osseous system, to which I shall refer last, the fœtus was found well developed in every part. The muscles were properly nourished; the lungs were healthy in structure; the heart was normal; and the vascular system was perfectly correct. The liver and gall-bladder, the intestinal canal, and the kidneys, were equally natural; but the spleen, which was of a size rather above the ordinary standard, was bound firmly by adhesion to the diaphragm at two separate points. The thymus was healthy. The tongue, which protruded from the mouth, at first sight seemed rather large; but, when the mouth was laid open, the enlargement was obviously due to the protrusion only. The brain was of full size, soft, as is common, in structure; but quite natural in conformation. All the cranial nerves were developed fully, and escaped from the base by their natural foramina. The cerebellum, medulla, and cord, presented no peculiarities. In none of the soft parts was there any arrest of development. The lips and palate were in no way cleft; and the nose was a normal pug.

In the osseous system, the peculiarities were very considerable. With the exception of two small osseous points in what should be the roof of the orbit, the frontal bone was *entirely absent*. Both parietal bones were *entirely absent*. The squamous portion of the ethmoid bone was *entirely absent*. The expanded, or, as it is sometimes called, the squamous portion of the occipital bone, was imperfectly formed. The osseous covering of the brain was thus wanting altogether.

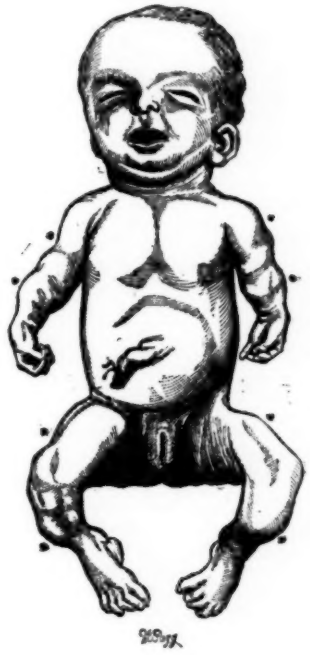

Fig. 1.

Contrasting strongly with this fact was the circumstance that all the bones entering into the composition of the base of the skull were, for the period, well developed, natural, and more than ordinarily firm. The petrous and mastoid processes of the temporal bones were present; and the crista galli of the ethmoid stood up prominently. The condyloid and basilar processes of the occipital were likewise natural. There was no cleft in the basilar process.

The spinal column throughout its entire length was well developed, was free from any unnatural curve, and might be considered as in all respects normal. The scapulæ, the clavicles, and the ribs, were moderately developed; but the ribs were so fragile that the merest pinch between the thumb and finger nails snapped them like thin glass.

The left humerus, on being removed and cleared of its coverings, was as follows. The two extremities were cartilaginous; the shaft in its middle bulged out into a round ossified protuberance, of the size and appearance of a small bullet; above and below, the shaft was suddenly contracted to the diameter of a crow's quill. There was ossification at these points, but the bone was so fragile that it would not bear the slightest manipulation. Just above the protuberance, in this constricted portion, there was a distinct fracture, slightly oblique, but complete. The fractured ends were jagged, and could be refitted into each other.

The right humerus presented an appearance identical with the left; there was the same tuberosity in the middle of the shaft. This bone was fractured in a similar manner, but in two places, *i. e.*, above and below the protuberance.

The radius and ulna on each side were each fractured in two points, namely, in the upper part of the lower third, and in the lower part of the upper third. The ulna of the left side had at some time been fractured in the middle of the shaft, and the ends had been partly rejoined by cartilage. The extremities of all the bones were cartilaginous, and the shafts ossified.

The pelvic bones were natural in shape, and were not fractured, but fragile.

The left femur was cartilaginous at its extremities; its shaft was ossified, and was thick in the middle, and rounded into a tuberosity like the humerus. This bone was obliquely fractured in two places in the upper third, and in one place below

the tuberosity. The fractured ends were jagged, and could be refitted together. When thus placed in apposition, the bone was seen to have a twisted character from right to left.

The right femur resembled the left, but was free of distortion. It was fractured also in three places, and had the tuberosity in the middle of the shaft. The fractures and

Fig. 2. Right Femur.

tuberosity of the right femur are well shown in the accompanying sketch.

The tibia and fibula of each side were cartilaginous at their extremities, ossified in the shafts. All were fractured in the shaft in several places. The fibulæ were, in fact, so fragile that, in gently stripping off the muscles, it was impossible to avoid snapping them across.

The bowed appearance of the limbs observed before the dissection, and which is well shown in the woodcut, was due to the fractures and the action of the flexor muscles.

With regard to the structure of the bones themselves, their chief physical peculiarity was their extreme fragilty. This was mainly confined to the shafts of the long bones. These would not bend anywhere, but would break at all points. The shafts were covered with periosteum, which being removed, the bone had a darkish grey carious appearance. At points where ossified matter was most developed, as in the protuberances already noticed, the knife cut through it easily, and found an extreme thinness of bone. The cartilages were natural, and the joints well formed. There was no sign of dislocation in any part.

As, from the twisted character of the bones in this fœtus, one would be led to infer that the case was one of rachitis; so, from an analysis that I made of the left femur, is this opinion the more fully confirmed; for, after carefully burning out all the organic matter, I found that the relation of organic and inorganic matters stood thus:—

Organic matter	66·66
Inorganic matter	33·34
	100·00

So that the deficiency of inorganic matter was well marked.

It is true that in the fœtal the amount of inorganic matter is always less than in the adult bone; and Franz Simon gives several tables from Von Bibra, illustrating the fact. But in none of these tables is there any such an approach to this proportion: the organic matter in all these cases being less than the inorganic, and standing in the relation of from 34 to 40 per cent. of organic to 60 to 66 per cent. of inorganic. Lehmann, however, in his analysis of the bones of three rachitic children, found nearly the same proportionate deficiency of inorganic matter as was observed in my case; while Ragsky found in the scapula and humerus of a rachitic child as small a proportion as 18·88 per cent. of inorganic matter, with 81·12 of cartilage, vessels, and fat.

The cause of the fractures in my case is, however, quite compatible with the unusual amount of organic matter, from the fact that the earthy matter was irregularly deposited.

Analogous Cases. Such are the details of this case. The society will, I am sure, pardon me for stopping at this point for a moment, to compare the preceding description, with one or two similar descriptions recorded in pathological history. These cases are very rare; and of those practitioners who may have met with such cases, few have taken the pains to record their observations. My brevity, in this part, will therefore be rather the soul of necessity than of wit.

Dr. Richardson, in his Fothergillian Prize Essay on *Diseases of the Fœtus*, has included every recorded and authentic case of the kind, either in detail or in the way of reference. This essay is in the Library of the Medical Society of London, but is unpublished. I take from it one original case, narrated by Dr. Richardson himself, as supplied to him by my friend Dr. Moffat, of Hawarden; and I shall add the facts of one or two other cases related by other authorities.

"On May 10th, 1846," says Dr. Moffat, "I was requested to visit Mrs. E., who was in labour. On the night of the 4th of April previous, on going over the snow she slipped, and fell with all her weight upon her right side, on the upper rail of a stile over which she was climbing. The fall gave her so much pain that she could not move from the spot for a considerable time. The pains were, as I infer from her description, uterine. After she had rallied she walked home, and had to remain in bed for a few days. There was considerable ecchymosis on the right side of the abdomen. Ultimately, she completely recovered, and went on well to the full period of utero-gestation.

"The labour was natural: it was a first pregnancy. When I was satisfied that the mother was doing well, and was safe from immediate danger, the nurse directed my attention to the child, whose right arm was not, as she said, all right. I found a swelling on the lower third of the humerus, and on examination detected crepitus. There was here an ununited fracture; and the enlargement, I concluded, was produced by osseous matter. On examining the forearm, another swelling was detected, but union was complete. In the lower extremities, I found the right much enlarged by osseous tissue, in the same manner as though it had also been fractured.

"I found also on measurement certain remarkable differences. The length of the sound arm from the acromion of the scapula to the external condyle of the humerus was three inches. This space in the fractured arm was two inches and a half. The girth of the sound arm was two inches and three-fourths; that of the fractured arm at the fractured part was five inches. The length of the sound forearm was two inches and one-fourth; of the fractured forearm two inches. The length of the healthy thigh from the trochanter major to the external condyle was three inches and a half; its girth was three inches and three-fourths; the length of the injured thigh was three inches and one-fourth; its girth at the fractured part was five inches and three-fourths."

The next well marked instance of intrauterine fracture is related by Chaussier, in *Bulletin de la Faculté de Médecine*, tome iii. All the long bones of the fœtus were fractured in one or more places; some of the fractures were recent, some partly united, and others quite united. There were in all a hundred and twelve fractures.

Chaussier's case is thus detailed. The mother, aged 33, healthy, had already borne four children. Pains came on at 6 P.M., but were apparently slight. She went to the Maternité at 9 P.M.; but on arrival, was at once confined in the porter's lodge. It was a breech presentation. She had received no injury during pregnancy; but had a white discharge, to which she was not subject. The child lived twenty-four hours. The long bones were unusually short and thick. Crepitation was distinctly perceptible. The periosteum was white, and especially thick at points of flexibility and crepitation. On removing the periosteum, fractured surfaces of bones were seen; each was red, unequal, grating, formed of small granules scattered with little laminar filaments, which extended from one surface to the other.

The fractures were as follows:—

Spine, pelvis, and jaws—not fractured.
Ribs—numerous fractures, seventy in all; some consolidated and presenting a large callus; others still crepitant. Each rib was broken in several points, in at least two places, and at most in five.
Right scapula—one consolidated fracture.
" clavicle—two fractures, one of which consolidated.
" humerus—three fractures, two consolidated.
" radius—three fractures, two consolidated.
" ulna—two fractures, one consolidated.
" fifth metatarsal bone—one fracture.
" femur—four consolidated fractures. The bone was thick, curved inwards, and short.

„ tibia—four fractures, three consolidated.
„ fibula—two fractures.
„ second metatarsal bone—one fracture.
Left scapula—one fracture.
„ clavicle—one fracture.
„ humerus—three fractures, two consolidated.
„ ulna—two fractures, one consolidated.
„ fifth metatarsal bone—one fracture.
„ femur—four consolidated fractures.
„ tibia—five fractures, four consolidated.
„ fibula—two fractures.

The union of the fractures is mentioned where it was found.

A fourth example, related with less attention to detail, is given by Baudelocque. In the year 1803, he observed forty-three fractures in a new born infant in the Maternité (See *Dict. des Sc. Méd.*, tome xvi, p. 64). All the bones of the limbs were broken nearly in the middle. Mother had had no accident during pregnancy. Delivery had been rapid and easy. No violence had been exercised on the fœtus. On dissection, all the large bones of the limbs were found broken, some in the middle, others in two places; most of the ribs and most of the cranial bones were also broken. Some of the fractures were consolidated, others in process of reunion.

Arnaud (*Nouv. Observ. sur la Pratique des Accoucheurs*, p. 92, obs. viii) has briefly described a fœtus of four or five months, in whom the bones were separate and movable in the middle of the forearms, thighs, and legs, as if they had been intentionally broken; they seemed only joined by the skin. (*Dictionnaire des Dictionnaires de Médecine Français et Etrangers.* Par une Société de Médecine, sous le direction du Dr. Fabre. Tome 3me, p. 219. Paris: 1840.)

A case, in which the tibia of a new born child was fractured, is recorded from Carus in the *Lancet* for 1827-8, vol. ii, p. 14; and, with the succeeding case, is quoted by Dr. Richardson in his Fothergillian Essay. The labour took place at the natural period. The mother, who was twenty-five years old, stated that, during the sixth month of pregnancy, she fell on her abdomen, and felt internal movements immediately afterwards, as if the child were in motion. The child was born alive, but was emaciated and feeble. A transverse wound in the right leg passed from the one malleolus to the other. At this point, the tibia was fractured completely through and necrosed. The edges of the wound were in a state of sphacelus. The child died on the thirteenth day.

Billard, in his work on *Diseases of Infancy*, p. 494, narrates, from Devergie, an example of fracture of the clavicle in a babe newly born. The labour took place naturally, and at the proper period. The mother, in the last month of utero-gestation, had fallen with her abdomen heavily against a table. The child was born with a large tumour on the left clavicle. It died on the eighth day after birth. On dissection, it turned out that the clavicle had been fractured, and that the fractured ends had been rejoined by a large callus, the projection of which had caused the tumour.

Dr. Montgomery, in his elaborate and philosophical essay on *Spontaneous Amputation of the Fœtal Limbs in Utero*, refers to a few cases of intrauterine fractures. He relates the case of a woman eight months pregnant, who fell from a window, twenty-five feet, into the stony street, on her face; her hip-joint was dislocated, and her face and hands cut; but the uterus was not ruptured. She was delivered that night of a dead child, which had some of its bones broken, and had sustained several other injuries. She recovered perfectly.

Dr. Montgomery remarks: "Grætzer, after relating cases of intrauterine fractures recorded by several authors, observes that, on reviewing these cases, it appears that in some the cause was purely mechanical, and had less effect on the mother than on the fœtus."

He also describes another case in which fracture of an arm and wound on the head were produced by an accident happening to the mother. Madame K., when thirty-six weeks pregnant for the third time, fell backwards off a ladder, on the 21st of September. She was stunned, and had pains in the loins and lower belly until her accouchement, which took place on the 6th of October, fifteen days after the accident to the mother. The labour was tedious and painful, but terminated without any interference. The child was thin and puny, and had on its head three wounds or sores, two on the frontal, and one over the occipital bone: they were granulated, and suppurating healthily. In addition to these injuries, the forearm was fractured; but all did well under simple management.

With regard to fracture of the fœtal cranial bones, Dr. Montgomery observes: "Instances of injury to the cranial bones before birth have been recorded by Osiander, W. J. Schmitt, Schnuhr, D'Outrepont, and Grætzer; and, still more recently, three well marked cases, in which several fractures were found under bloody tumours, were published by Drs. Flugel and Schelling. When these injuries of the fœtal head were first observed, they were attributed to violence by Haller, Rosa, and others, the error of which opinion was first perceived by Rœderer and Baudelocque; and it is needless to say how important is the distinction, especially in a medico-legal point of view."

I have thus adduced various illustrations of cases analogous in many respects to the one which occurred under my own care, and entirely analogous as to the fact of the existence of fracture of bone. These cases are all so many texts for philosophical discourse; but it will be advisable now to take up such points only as are most interesting in a practical sense.

[*To be continued.*]

SINGULAR CASE OF PLACENTA PRÆVIA: IMMENSE ACCUMULATION OF HYDATIDS IN THE UTERUS: ABSENCE OF FŒTUS.

By R. Wynne Jones, Esq., Beaumaris.

Mrs. B., aged 25, a healthy subject, and mother of two children, the youngest being four years old, consulted me about the middle of May, under the following circumstances. Having menstruated (?) regularly up to this time, after weaning her last baby, she was surprised to find herself pregnant, having, as she alleged, decidedly "quickened", which she knew "from feeling a movement in the womb, a slight enlargement of the abdomen, a swelling of the legs, and a sense of general debility," etc. Having on the previous two occasions suffered nothing from the ailments and inconveniences usually experienced by pregnant women, she was not much astonished to find herself so far gone with child without being sooner aware of it; but she was quite at a loss to account for "being regular as usual every month". As there was a tendency to constipation of the bowels, I prescribed an aperient to be taken occasionally, and told her that a little time would prove whether she was really pregnant or not.

On the 1st of June, she was attacked with considerable "flooding", which was suppressed by rest and ordinary treatment. The hæmorrhage, however, appears never entirely to have ceased; for she says she continued more or less "unwell" from that time till July 17th. I was then summoned to her in haste, she having had labour pains some hours, and being represented as "flooding to death". On my arrival, I found the account not much exaggerated. Her cheeks were blanched; her pulse was small and feeble; and very alarming hæmorrhage had taken place, and was still going on. I immediately made an examination, and found, as I had previously suspected, that it was a case of placenta prævia; and I lost not a moment in taking the necessary steps. Fortunately, the os uteri was considerably dilated, and the placenta was so lacerable that I had no difficulty in passing my hand through its substance into the cavity of the uterus, which was fully as large as usual at the seventh or eighth month of pregnancy; but, to my astonishment, I could find no fœtus nor vestige of one. The womb was distended with hydatids, some of which were forced along my arm through the vagina. Having *seen* these, and being agreeably surprised to find that the discharge was not blood or coagula, I proceeded to detach the placenta, which was attached to the whole circumference of the os uteri. This I succeeded in doing piecemeal, for it was so easily torn that I could not do otherwise; and, on withdrawing my hand, the placenta, and about two-thirds of an ordinary sized chamber-potful of hydatids were expelled through the vagina. There was no further hæmorrhage, though there appeared little uterine contraction. I administered a drachm of ethereal tincture of ergot, and bound the abdomen, as I am in the habit of doing after natural confinements. In about two hours, my friend Dr. Llewelyn Jones came to see my patient, and examined the expelled matters. We found them to consist—1st, of an infinity of transparent hydatids, varying from the size of a marble to that of the smallest pea, united together by a white fibrous or membranous substance; 2nd, the torn placenta, which was apparently about the usual size and thickness, but its substance thickly studded with small hydatids, similar to those contained in the uterus. There was no funis.

My patient soon rallied, and felt very comfortable, occasionally discharging small quantities of hydatids, but without any pain. In a few hours, she slept well, passed urine freely, and passed an excellent night. She stated that her breasts had been "tender and lumpy" till about a week ago, when they began to diminish in size, becoming soft and flaccid, and without any secretion of milk. During the two following days, hydatids continued to be discharged, after which the lochia assumed their usual course, and her recovery was as rapid and favourable as under an ordinary accouchement attended with hæmorrhage. At the expiration of a month, she was quite well, and following her usual avocations and habits.

It is perhaps to be regretted that neither the weight nor measure of the ejected matters could be ascertained; but, in private practice, such accurate details are rarely obtainable: the quantity, however, may be easily surmised, from the size which the uterus had attained.

Remarks. The foregoing case may perhaps not be a solitary one, but I have not been able to discover any record of a like one, and it consequently appears to me worthy of publication. I apprehend—

1. That impregnation took place, but at what period must be uncertain; for menstruation (?) continued regular till within the preceding ten weeks.
2. That the ovum, from some cause or other, became "blighted".
3. That the placenta, being situated so as to occlude the os uteri, became subject to that condition favourable to the development of hydatids, which could not be expelled until the uterus became so distended as to bring on its contractions, as at the full period of natural gestation.

Periscope.

SURGERY.

FROTTEMENT IN INFLAMMATION OF THE SHEATHS OF TENDONS.

Dr. Henry Thompson, Surgeon to the Tyrone Infirmary, has a note on this subject in the *Dublin Hospital Gazette* for June 15th, 1857.

Three cases occurred to him lately, in which the patients complained of pain in different parts of the forearm, the cause of which, without the physical signs above mentioned, would have been obscure. In each instance the patient had been engaged in some work to which he had been previously unaccustomed. One gentleman was so anxious to get his potatoes set, that he took the spade in his own hand, and laboured with it the greater part of a day. Next morning his arm was useless, from a severe pain along the radial side of the forearm, increased to torture whenever he moved his thumb, on which occasions he was sensible of a creaking sound in his arm, so remarkable, that it was mistaken for the crepitus of a fractured bone by the gentleman to whom he first applied; and when Dr. Thompson saw the limb it was done up in splints and bandages *secundum artem*. He placed a stethoscope on the part, and made the patient apply his ear to it, when he at once compared the noise to the creaking of a new shoe.

A young lady, very fond of the piano and harp, became suddenly, and to herself unaccountably, incapacitated from practising, from a pain along the front of the forearm, in the course of the flexor tendons, greatly increased by stretching the fingers. By catechising her pretty closely, Dr. Thompson found she had been busily engaged in preparing a house for a newly married relative, and had been employing herself in sewing carpets, which were new and heavy, and required a great deal of force to pull the breadths into their places. This was quite enough. On applying his fingers and moving hers, he felt the grating, and at once diagnosed the case.

The other was in an hospital patient, and was very similar to that first described. There was some slight fulness in the affected parts, as well as some tenderness on pressure; but neither was very remarkable, the great complaint being the pain on motion. The cure was somewhat tedious in all, and seemed to be favoured by rest, a few leeches, and cold washes at first, and subsequently by tincture of iodine and liniments; but ultimately both pain and frottement disappeared.

INTERNAL REMEDIES IN STRANGULATED HERNIA.

Case I. *Strangulated Hernia returned, under the Influence of Acetate of Lead Enemata.* Dr. Flögel relates the following case:—Mr. N., whilst dancing, felt an inguinal hernia on the right side (from which he had suffered for some time) becoming strangulated. Taxis, ice, and leeches, did no good; vomiting set in; and, twenty-seven hours after the strangulation, there was much prostration and hiccough; pulse 140, small and intermitting; skin cold. The hernial tumour was of the size of a goose's egg, hard, immovable, of a dark red, and slightly painful on pressure. An enema was then given, composed of grs. xxij of sugar of lead, in half a pound of water; some ice was, besides, put upon the tumour. An hour afterwards, vomiting and hiccough were less frequent; the enema was repeated. The tumour then became less hard, and the sickness and hiccough ceased; pulse 128. The patient then slept for half an hour, and the swelling diminished one-half, became soft, and was easily reduced. Alvine evacuations were then obtained by purgatives, and the patient left the hospital in perfect health. Dr. Flögel ascribes the successful result to the styptic action of the saturnine salt, which, by causing retraction of the intestine, both in the longitudinal and transverse directions, draws the herniated portion of the bowel into the abdomen. Dr. Flögel adds, that he failed in one case only, viz., that of an old inguinal hernia, where numerous adhesions had formed. The dose of the acetate of lead is from fifteen grains to half a drachm for each enema. The enemata have been administered every hour, without any unpleasant effects. (*Œster. Zeitschr. für prakt. Heilkunde;* and *Lancet.*)

Case II. *Strangulated Hernia reduced under the influence of the Internal use of Extract of Belladonna.* M. Burgatti relates the case of a man, aged 42, who, whilst busy removing heavy logs of wood, felt a sudden violent pain in the right groin, a tumour in the same region appearing at the same time. He was obliged to keep his bed; soothing applications were used during the night. Dr. Burgatti found in the morning an inguinal hernia, the tumour of the size of a hen's egg, hard, and not as yet descended into the scrotum. The symptoms of strangulation were very severe. Taxis was immediately tried, but the patient could not bear it. M. Burgatti then gave two grains of extract of belladonna every four hours, day and night, and ordered enemata of sweet oil, in which dried camomile had been digested. No change next day was observed in the patient's condition; food and liquids were alike rejected, but the tumour was less hard. The same treatment was followed. Much improvement was observed on the following day; the vomiting had stopped, and an alvine evacuation had taken place; the face was less anxious; and the patient felt better. Reduction was then extremely easy; and in the course of three days the patient completely recovered. (*Il Raccoglit. medico di Fano;* and *Lancet.*)

British Medical Journal.

SATURDAY, SEPTEMBER 26th, 1857.

SUBURBAN FILTH.

A writer in the *Times*, under the signature of M.R.C.S., calls attention to the necessity for a more stringent supervision of all houses erected for the poor. As he very justly observes, the authorities have taken precaution that fresh air shall be supplied to emigrants on board ship, where it is sometimes difficult to provide it; yet on land, where nothing is easier, the parsimony and the fraud of builders but too often show themselves in running up cottages in which every condition of health is neglected, and successive crops of fevers and other epidemics are ensured for unborn generations. A very capital sketch appeared in *Household Words*, the other day, of the deplorable condition of that debatable ground between the metropolis and the country, known as the suburbs of London. Here,

where the evils of a crowded city would appear, on the first blush, to be in some degree mitigated by the freer access of fresh air, they are, in fact, vastly aggravated by the fact that no drainage at all is attempted. In the midst of a dense population, the very magnitude of the evil necessitates a systematic drainage. The combined wealth also of urban populations renders the construction of efficient sewers easy; but the case is entirely different with those houses which may be said to form the advanced guard of the town encroachment upon the country. They are either so isolated that it is found impossible to connect them with the existing system of drains without inflicting an expense which would put a stop to all such buildings, or the powers of the commissioners are so restricted that, even under more favourable circumstances, they cannot compel owners of mushroom terraces to link on to the general system of drainage. This is an evil which threatens to undo at the circumference all that is being done by health officers for the heart of cities. Only medical men who practise in the suburbs, who enter "rural paradise" after paradise, clustered in front with clematis and bright with flowers, but stinking and foul behind with stagnant ditches, overflowing cesspools, and undrained back yards, can appreciate the amount of disease at present entailed upon poor people through this state of things. Death, indeed, puts on a deceitful mask in such localities; and the rank health of the vegetation is only a measure of the human mortality to be anticipated.

It is a very prevalent, but a very mistaken notion, that, in the midst of the fresh air, any collection of morbific matter proves harmless. The infinite diffusibility of gases does indeed mitigate the evil to a considerable extent; but that this law is not sufficient to overcome the rapidity with which foul air is sometimes given off, must be obvious to every one who studies the subject. We know ourselves a *beautiful* village in Hertfordshire, where fever is a constant resident, scores of the inhabitants having perished within the last few years in consequence of the want of drainage.

Another cause of the serious mortality which overtakes the dwellers in the suburban districts of large cities, and especially of the metropolis, is the presence of large brickfields and lime-kilns. When at work, the amount of carbonic oxide and acid gas given off by them quite poisons the air; and we only wonder how any human beings can exist in an atmosphere which cannot be outdone by that of the infernal regions. Even the deserted brickfields themselves, which are generally pitched upon by speculating builders as the site of some "Albert Terrace" or "Victoria Grove", are noxious in their ruins. It has been observed that ague commonly attacks persons who dwell near such places; and this in some measure corroborates a statement made by Dr. Watson in his *Practice of Physic*, that ague is generally most virulent in places where the sun has cracked the earth lately saturated with rain, and set at liberty some noxious subterranean gas. Such ague and fever beds are constantly being made in the outskirts of this metropolis; and, when they are made, people lie on them as innocently as though they were lying on beds of roses, until the hand of death mows down in rapid succession, first the young, and then the middle aged and old. There is almost as much necessity for the selection of ground for the encamping of this semi-town population, as there is for the encamping of an army; nay, in some respects there is a greater necessity, for tents can be shifted, but suburban terraces are fixed in their filth, until lath and plaster rot from the effects of damp and age.

In order to mitigate the growing evil, it will be necessary before long to appoint health officers especially for these neglected districts, whose powers shall be of a more stringent and summary character than those possessed by officers of the more civilised portion of the urban populations. We want, in fact, a kind of irregular medical force, to keep in check these Bashi-Bazouk builders, who seem inclined to fling off every kind of restraint the moment they plant their bricks and mortar on some deserted brickfield or scrubby bit of common land. It is a disgrace to the Building Act that it cannot reach far enough to protect our outlying population from the shortcomings of such knavish personages.

THE WEEK.

We understand that a project has been formed among some of the junior medical officers of the Metropolitan Hospitals, principally house-surgeons, demonstrators, and registrars at the respective schools, having in contemplation the establishment of a Medical Society which shall embrace all students and junior practitioners of medicine, below a certain standing (to be fixed afterwards), in the metropolis. The mention of such a project is almost sufficient of itself to recommend it to all who have the best interests of our students at heart; and still more if they happen to know how much good has sprung from the prosperous activity of a similar society in Edinburgh. At present the students know too little of each other; even the schools at which they are educated know too little of each other; there are too many little jealousies and prejudices of this hospital against that—too little of the free communication and mutual assistance and sympathy which more frequent opportunities of intercourse would bring about. It is in vain to expect an improvement in this direction from the personal exertions of men so absorbed in other necessary matters as the senior officers of our great hospitals. It is to their juniors that we must look; and they are quite willing to devote themselves to the effort, with proper encouragement. A society of this kind, properly organised and well managed, might be made a most important means of medical education, and tend more than any other method yet devised to promote that habit of clinical observation which is so sedulously recommended to students by their teachers, but which most of them too much neglect. It might also be of still more important benefit in promoting a friendly fellow-feeling and *esprit de corps*, of which the medical profession is more destitute than any other, because its members are not sufficiently brought into contact. If any doubt had ever been entertained of the fitness of our students for public intercourse and discussion, their conduct "in public meeting assembled", on the subjects of Naval and Poor-law Medical Reform, would be sufficient to remove such doubt, and to show that they can conduct public discussion with as much intelligence and propriety as other gentlemen of their age and experience. Who amongst our university readers does not go back with pleasure to the vivid declamation and good humoured satire of the Union? What young lawyer but sharpens his new forged weapons at the clanging anvil of the legal debating club? Why should not the youth of our pro-

fession have similar intellectual recreation? The state in which matters stand with this project at present is, that a preliminary meeting of gentlemen from the various hospitals interested in this question has been held, and certain resolutions passed, embodying in general terms the opinion of their authors of the advantages which would attend the founding of such a society. They now appeal for aid in the execution of their project, primarily to the medical press and their seniors in the profession, and next to the zeal and intelligence of their coequals. Mr. Ernest Hart, Demonstrator of Anatomy at St. George's Hospital, has been named Provisional Secretary; and any of our associates who wish to promote the success of this scheme would, we are sure, be doing good service to medical education in its widest sense by putting themselves in communication with him.

We have more than once drawn attention to the fact that clergymen have of late evinced a strong tendency to recover their ancient office of physician as well as priest. The number of advertisements which appear in the *Times*, from clergymen, proposing to take charge of "nervous invalids" (otherwise, of the insane), are indicative enough of the pretensions of the cloth; but these advertisements only evidence a portion of the encroachment. A friend, who had occasion to advertise in the *Times* for some gentleman qualified to take charge of a mentally afflicted invalid, informs us that fully one-third of the answers received *were from clergymen*, and that these gentlemen arrogated to themselves mental control and influence in an extraordinary degree. In fact, we feel convinced that a very large class of the clergy believe that insanity is to be treated by spiritual influence only. The amount of damage which may be inflicted by this mischievous notion is incalculable; and we feel called upon to protest in the strongest manner against this poaching of unlicensed and unqualified persons upon the legitimate province of the physician. The insane, at the present moment, are not sufficiently protected by the law. There are thousands of mentally afflicted persons in this country, at the present moment, hidden away in the houses of clergymen and females, and totally deprived of any kind of medical treatment, or, if treatment they have, it is of the spiritual kind which these pseudo-priest-physicians indulge in, the irritating and irrational nature of which, under the circumstances, will be thoroughly understood by those of our associates who have made psychological medicine their study.

In our weekly list of deaths it has been our mournful duty to record, during the progress of the Indian mutiny, the massacre of several regimental surgeons and assistant surgeons. The dismal list of our brethren who have been brutally murdered by the very men whom they were devoting their lives to assist in the hour of their greatest necessity, is daily augmenting in length. From a list, published lately in the *Times*, of those known to have perished up to the last receipt of news, we take the names of the following victims, some of whom were doubtless known to many of our associates. Dr. Carl Buch (Bareilly), Dr. John Macdowall Hay, Dr. and Mrs. E. M. James (Augur), Dr. John Kirk (Assistant-Surgeon), Dr. Robert Lyell (Patna), Mr. James Graham (Superintending-Surgeon), Mr. Henry Hawkins Bowling (Surgeon), Mr. John Pierce Bowling (Assistant-Surgeon), Mr. Kinloch W. Kirk (Surgeon), Mr. Moore (Surgeon 60th Rifles), Mr. Anthony Dopping (Assistant-Surgeon), Mr. Joseph Fayrer (Assistant-Surgeon), Mr. John Colin Graham (Assistant-Surgeon), Mr. George Hansbrow (Assistant-Surgeon). We are afraid this is far from a complete list of the unfortunate victims. Peace be to their ashes, and may their manes be avenged! We trust that the names of our brethren who fell whilst doing their duty will not be allowed to pass into oblivion, but that they will be handed down on some memorial brass to show to future Englishmen how deeply our profession has suffered in the great Indian mutiny. Among the names given above, our readers will recognise those of the two sons of a highly respected member of our Association—the late Mr. John Bowling, of Hammersmith.

Association Intelligence.

LIST OF MEMBERS: NOTICE.

In accordance with Law 24, a list of members of the British Medical Association will shortly be published. Gentlemen whose designations or addresses are incorrectly given in the last list, or on the wrappers of their Journals, will oblige by at once forwarding the necessary corrections to the Editor of the Journal, 37, Great Queen Street, Lincoln's Inn Fields, London, W.C.

LETTERS AND COMMUNICATIONS.

Letters or communications for the Journal should be addressed to Dr. Wynter, Coleherne Court, Old Brompton, S.W.

Letters regarding the business department of the Journal, and corrected proofs, should be sent to 37, Great Queen Street, Lincoln's Inn Fields, W.C.

ADMISSION OF MEMBERS, AND PAYMENT OF SUBSCRIPTIONS.

The General Secretary of the British Medical Association begs to call the attention of members to the Laws regarding the Admission of Members, and the Payment of their Subscriptions.

"*Admission of Members.* Any qualified medical practitioner, not disqualified by any bye-law, who shall be recommended as eligible by any *three* members, shall be admitted a member at any time by the Committee of Council, or by the Council of any Branch."

"*Subscriptions.* The subscription to the Association shall be One Guinea annually; and each member, on paying his subscription, shall be entitled to receive the publications of the Association for the current year. The subscription shall date from the 1st January in each year, and shall be considered as due unless notice of withdrawal be given in writing to the Secretary on or before the 25th of December previous."

Either of the following modes of payment may be adopted:—

1. Payment by Post-Office Order to the Treasurer (Sir C. Hastings, M.D., Worcester), or to the undersigned.

2. Payment to the Secretary of the Branch to which the member belongs.

3. Members residing in the Metropolis and vicinity can make their payments through the publisher of the British Medical Journal, Mr. Thomas John Honeyman, 37, Great Queen Street, Lincoln's Inn Fields, W. C.

Philip H. Williams, *General Secretary.*

Worcester, September 1857.

BRANCH MEETINGS TO BE HELD.

NAME OF BRANCH.	PLACE OF MEETING.	DATE.
South Midland. [General Meeting.]	Harpur Charity Room, Bedford.	Tues., Sept. 29, 2 P.M.
Birmingham and Midland Counties. [Ordinary Meeting.]		Thursday, Oct. 8th.

SOUTH WESTERN BRANCH: ANNUAL MEETING.

The annual meeting of the South Western Branch was held at the Athenæum, Plymouth, on Wednesday, July 22nd, Joseph C. Cookworthy, M.D., President in the Chair.

The retiring President, Dr. Paterson (Tiverton) took the chair for the purpose of resigning it to Dr. Cookworthy, who, he said, had already filled the chair at one of the annual meetings with marked success. He hoped that Dr. Cookworthy would have a peaceful year of office, but he confessed that he would rather look forward to the settlement, during the ensuing year, of some of those important medical questions which had occupied so much of the attention of members of the profession as well as of the House of Commons during the past session, and not find them all withdrawn as had hitherto been the fate of the measures brought under the consideration of Parliament.

Dr. Cookworthy then took the Chair, and gave the following

PRESIDENT'S ADDRESS.

He believed it was customary for the President, upon such occasions, to prepare a written address, but he had not done so, feeling that the little he had to say could be better said than read. Had not the Branch met in Plymouth before, he might have thought it desirable to invite their attention to many subjects of local interest, with which they were probably now acquainted; he might have referred to the natural beauties of the district, unfortunately not to be seen to advantage on such a day as this; and to its medical charities—the South Devon Hospital, Public Dispensary, and Eye Infirmary—all of which institutions were creditable to the people, and beneficial to the sick poor, of the town and neighbourhood. He might have also asked them to look over the Government Hospitals—Naval and Military—in which the invalids of both arms of the national service received all the care and attention which they needed. He should have referred them, too, to the Naval Arsenals of this port—to the Dockyard at Devonport, the Royal William Victualling Yard, and the New Steam Yard at Keyham, all of which were establishments of national importance, and a visit to which would be well repaid by the inspection of many processes of mechanical science there in actual operation. He should also have directed their especial attention to the Railway Bridge at Saltash, which was an object of great attraction, and a day might be well employed in its inspection.

There were other subjects which were generally included in the address from the chair, and which related to questions of medical polity. In the repeated discussion of these matters, they had been worn almost threadbare; but still he hoped that the members of the profession would never abstain from agitating them, and in forcing them upon the attention of Government, until they succeeded in obtaining their just requirements. Although they had not yet secured the passing of any Bill on Medical Reform, he was not without the hope that a Bill of the provisions of which they could approve would soon become law. He could not but congratulate them upon the result—poor as it was—of the recent discussion on this matter in the House of Commons; the majority upon that occasion, though the Bill was opposed by the government and the Board of Health, was 197, a larger number of members than had ever been prevailed upon to give attention to the subject before. [*Hear.*] And when they considered the prominent part which medical men often took in the return of members to Parliament, he thought that they might very properly use their influence in inducing members of the legislature to give, at all events, a fair consideration to subjects in which the medical profession were so largely interested. He believed, too, that the success of any good measure for Medical Reform would, in no small degree, depend upon the success which attended that association. [*Hear.*] It at present numbered 2,000 members; which was less than one-tenth of the number of members in the profession in England alone. If the Association, however, were more numerous, they would speak with more power, and enforce, with a greater chance of success, the wishes to which they might give utterance. He hoped that the committee of the Association would, previous to the next session of Parliament, be enabled to prepare such a Bill for Medical Reform as would be less open to objection, and prove more advantageous to the profession than would either the Bill of Mr. Headlam or that of Lord Elcho.

He believed that the extension and success of the Association would operate most beneficially upon the character of the relief and medical attendance given to the poor. They would find that medical men would be better paid, and receive more consideration as medical officers of Unions. Some of the evils, however, which the profession laboured under originated with themselves. If, for instance, they did not often underbid each other, they would be better paid, and the sick poor would be better attended to, which latter consideration was in itself an important matter; for at present he feared that more was often thought by Poor-law guardians of the amount of salary than of the character of the medical relief which the poor were likely to receive. [*Hear, hear.*] This was, as he had said, an important subject; and when attention was drawn to it, it would assist to form that public opinion which would facilitate the attainment of the objects they had in view. The meetings of the Association would also conduce to social intercourse between members of the profession, and to greater unity of spirit, and a larger amount of consideration for each other. And if the members of the profession generally could be prevailed on to recognise and to act upon the principle of "*Quod tibi, id alteri*," they would want no code of medical ethics, inasmuch as this principle was the basis of all ethics, whether clerical, medical, or general. [*Hear.*]

Another subject upon which he thought it right to touch, was the Journal of the Association, in reference to which he thought there were very few who would not agree with him in the opinion that the Journal had very much improved under the able editorship of Dr. Wynter [*hear*], and that it was characterised by a genial spirit which was well calculated to produce harmonious feeling among the members of the profession. He should very much like to see an accession of numbers to the Association, as it would give the Journal a larger capital, and would tend to make it more valuable, both as a commercial speculation and as a literary production. It was a fact within his (Dr. Cookworthy's) knowledge, and many others would doubtless confirm the statement, that the principal object for which not a few of the members resident in the rural districts subscribed to the Association, was that they might have a weekly journal; and the improvement of the Journal was therefore a matter of no small importance. [*Hear.*]

Dr. Cookworthy then thanked the meeting for the high honour which they had conferred upon him in appointing him a second time to the office of President, though he could not help thinking the appointment alike unfortunate for him and the Association: for him, inasmuch as by putting a light on the top of a hill, its deficiency, which, in a lower situation, might have escaped observation, became obvious; and for the Association, inasmuch as they might have had others better qualified than himself to discharge the duties of the office. Still he thanked them for his election, which he accepted as an evidence of their partiality and friendship. [*Hear.*] He was happy to see so many of his medical brethren from other towns, and could only wish that more of the profession resident in this neighbourhood had been present to welcome them. He could assure them, however, that their brethren of the Plymouth Medical Society were desirous of doing them honour, and had invited not only them, but every medical man within an area of thirty miles, to a *soirée* that evening, to which, also, many of the clergy, army and navy officers, and other gentlemen interested in the advancement of modern science, had likewise been invited.

In conclusion, he had to inform them that a paper had been received from Dr. C. Barham, of Truro, which contained an account of the poisoning of two children by the leaves of common rhubarb; and it was extraordinary that the *leaves* should poison while the *stalks* were employed so largely for domestic purposes. This paper would be read to them in the course of the afternoon. The President referred to other contributions which had been made to the society for the inspection of the members, and the ordinary business of the Branch was then proceeded with.

VOTES OF THANKS.

Mr. J. Edye (Exeter) proposed that the best thanks of the meeting be given to the President, Dr. Cookworthy, for the

admirable address which he had delivered. He perfectly concurred with the observations which the President had offered upon the subject of Medical Reform, and trusted that a Bill would, by and bye, be prepared which would approve itself alike to the profession and to the public generally. With reference to the resolution which he rose to propose, he should observe that such sincere respect was felt for the personal character of the President, and so high an opinion was entertained of his professional abilities by the members of the profession resident at Exeter, that it was matter of great regret to many of these gentlemen that, owing to a variety of circumstances, they were prevented from meeting their professional brethren of Plymouth upon that occasion, and were denied the pleasure of seeing Dr. Cookworthy in the chair. [*Hear.*]

The resolution was seconded by Mr. W. POLLARD, jun., of Torquay, and carried.

Mr. P. W. SWAIN (Devonport) moved a resolution of thanks to Dr. Paterson for the ability with which he had sustained the office of President during the past year. He proposed the resolution with pleasure; for although he was precluded from giving his personal attendance at the meeting at Tiverton, he had heard from his friend, Mr. Whipple, that it was an exceedingly agreeable one, and that Dr. Paterson did everything in his power, to contribute to the pleasure of visitors from other towns. [*Hear.*]

Mr. EDYE, in seconding the resolution, remarked that he was one of those who were fortunately enabled to attend the meeting at Tiverton, and was therefore enabled to state, from personal experience, that the general arrangements were not only of the most satisfactory character, but that the address of Dr. Paterson was such as might have been expected of that gentleman; it was full of information, ably written, gracefully delivered, and possessed another good quality, that of not being too long.

PLACE OF MEETING IN 1858: ELECTION OF PRESIDENT.

Dr. PATERSON proposed that the next meeting be held at Exeter.

Mr. R. KERSWILL (St. Germans) seconded the motion, which was agreed to unanimously.

Dr. NANKIVELL (Torquay) proposed that JOHN EDYE, Esq., of Exeter, be requested to fill the office of President for the year 1858.

Mr. S. KERSWILL (Devonport) seconded the motion, which was carried.

Mr. EDYE said he considered it to be a very high position to be President of such an assembly, and he therefore felt all the more gratified that such an honour should have been conferred upon him. He hoped that all his professional brethren resident in these towns would endeavour to be present at the next meeting; and although they could not show them at Exeter anything that could compete in point of interest with the Hamoaze of Devonport, or the many objects which met the eye upon Plymouth Hoe, yet he could promise them that they would do what they could to make the visit agreeable to them.

VOTE OF THANKS TO THE SECRETARY.

Mr. EDYE moved a vote of thanks to C. H. Roper, Esq., the Secretary.

Mr. W. POLLARD, jun. (Torquay) seconded the resolution.

The PRESIDENT said he wished also to state how largely the Association was indebted to Mr. Roper for the able manner in which he discharged the duties devolving upon him. He considered, however, that a great deal of unnecessary labour was thrown upon the Secretary, through a defect in the organisation of the Association, by which four or five persons were empowered to receive the subscriptions of members, the result of which was that not more than 25 of the 150 members included in the district Association remitted their subscriptions to the Secretary. Much confusion and unpleasantness were thereby often occasioned, for it happened that whilst some members omitted to pay their subscriptions for a period of four or five years, and were perhaps never reminded of the fact, there were others who were asked for their subscriptions after the same had been paid. [*Hear.*] He suggested that this was a point which should be brought under the notice of the forthcoming annual meeting of the general Association, to be held at Nottingham; and at a subsequent stage of the proceedings, the matter being again adverted to, it was resolved that the members of the Association residing in the South-Western District, be requested to pay their subscriptions to the district Secretary, and that a like arrangement for other Branches be recommended to the general meeting to be held at Nottingham.

COUNCIL OF THE BRANCH.

Dr. RADCLYFFE HALL (Torquay) proposed, and Mr. W. J. SQUARE (Plymouth) seconded the appointment of five members of the Council of the Branch, in the room of the gentlemen who retired by rotation.

NEW MEMBERS.

Dr. PATERSON moved that Messrs. J. S. Smith and H. Bate, of Tiverton, R. Bryden, of Uffculme, Milsom, of Cullompton, Dr. Littleton, of Saltash, and Mr. Puddicombe, of Silverton, be elected members of the Association; which was seconded by Mr. BURROUGH, of Dartmouth.

REPRESENTATIVES IN THE GENERAL COUNCIL.

Mr. J. HICKS (Plymouth) proposed, and Mr. CLARK (Saltash) seconded the appointment of Dr. Shapter and J. Edye, Esq., of Exeter, Dr. Nankivell, of Torquay, and T. Pridham, Esq., of Bideford, as representative members of the General Council.

VOTE OF THANKS TO DR. WYNTER.

Mr. T. PRIDHAM (Bideford) proposed thanks to Dr. Wynter, for the improvement which the JOURNAL had sustained under his management.

Mr. C. H. ROPER seconded the motion, which was carried.

CASES AND COMMUNICATIONS.

The SECRETARY then read a paper of Dr. BARHAM, on the poisoning of two children in consequence of eating of the leaf of rhubarb, which they had amused themselves by chopping up in imitation of mint-sauce.

Mr. W. J. SQUARE remarked that he thought the proof offered of the children having been poisoned was not strong, and Mr. EDYE said he too considered that the case, as it stood at present, was not proven.

Mr. J. ELLIOT (Kingsbridge) moved a resolution of thanks to Dr. Barham, which was seconded by Mr. W. J. SQUARE.

Dr. RADCLYFFE HALL (Torquay) read a communication in confirmation of his former observations, on the mode of origin of tubercle in the lungs in pulmonary consumption, and presented a drawing.

Mr. T. PRIDHAM (Bideford) mentioned three cases which he had reported since the last meeting. The first was one of idiopathic tetanus, which occurred during Palmer's trial, and was said to be so rare that Sir Benjamin Brodie had stated that he never saw but one case of the kind. The second was a case of perforation of the heart by a needle, the result in both instances being favourable; and the third case was spontaneous separation of the leg of a man, aged 87, who was still alive.

The proceedings of the meeting terminated with a vote of thanks to the Chairman, moved by Mr. P. W. SWAIN, and seconded by Dr. PATERSON.

The members of the Association then adjourned to the Royal Hotel, where they dined together under the presidency of Dr. Cookworthy.

THE EVENING MEETING.

At 8 o'clock, the members of the Branch, with a large number of other gentlemen who had been invited to meet them, assembled at a conversazione in the hall of the Athenæum.

A number of objects of interest to men of science were displayed upon the tables; and many powerful microscopes, furnished by Mr. Heath of Devonport, were exhibited.—A number of beautiful botanical specimens were also supplied by Mr. I. W. N. Keys.—After coffee had been served, Mr. P. W. Swain read an interesting paper on the means to be employed in the restoration of persons apparently drowned, strongly recommending the "ready method" proposed by Dr. Marshall Hall.—Mr. W. J. Square gave some particulars of the cases operated upon for stone in the South Devon Hospital, and mentioned the gratifying fact that, whilst the average of successful operations of this kind was six out of seven, no less than thirty-one of the thirty-two operations in the hospital had proved successful.—Mr. J. N. Hearder followed with some clever experiments on the induction coil; after which Mr. R. Oxland traced the history of the manufacture of sugar; and Mr. Hands explained his invention for the preservation of meat.

The proceedings were brought to a close about 11 o'clock; and it must have been very gratifying to the President, and to the members of the Association, to witness the marked success which had attended their efforts to please and interest the numerous company which assembled upon the occasion.

[This interesting report would have been inserted long ago: but it only recently came to hand, having been lost in transmission through the post. EDITOR.]

Reports of Societies.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

TWENTY-SEVENTH ANNUAL MEETING.

[*Held in Dublin, August 26th, and following days*, 1857.]

[*Continued from page 799.*]

Section of Zoology and Botany.

METHOD OF APPLYING THE COMPOUND MICROSCOPE TO THE SIDES OR TOP OF AQUARIA LESS THAN TWO FEET IN HEIGHT. BY P. REDFERN, M.D.

The arrangement consists of a vertical stem, supported by a heavy foot. On the stem a short transverse tube slides vertically and rotates on the axis of the stem, as well as on an axis at right angles to the direction of the stem. This transverse tube carries a long sliding arm, made use of as a lever, with arms of very unequal length. The short arm of the lever terminates in the cup of a ball-and-socket-joint. A short stem attaches a tube to the ball, and this tube allows that which carries the objective and ocular to slide through it in coarse adjustment; whilst a fine adjustment is made by acting on the long arm of the lever. The body of the microscope may thus be placed either vertically or horizontally, and placed either over an aquarium or applied to its side with equal ease in the use of the two-inch, one-inch, and the half-inch objectives. For the purpose of illumination, Dr. Redfern employs a small mirror, which is let down into the fluid, and is capable of being moved in any direction by a simple arrangement of brass wires shown to the Section.

FURTHER REPORT ON THE VITALITY OF THE SPONGIADÆ. BY J. BOWERBANK, ESQ.

The author stated, that in his former report he had detailed a series of observations on the inhalation through the pores and the exhalation of water through the oscula of a marine sponge, *Hymenacidon caruncula*, and that he was enabled to determine with certainty the capability which that sponge possesses of opening and closing the oscula at its pleasure, but that he could not in that series of observations satisfactorily determine the nature and powers of the imbibing pores, as those organs can only be seen distinctly in operation in very young and transparent specimens; he, therefore, commenced a series of observations on the action of the pores in young specimens of *Spongilla fluviatilis* on October 3rd, 1856. He found that in a specimen about half an inch in diameter, which had attached itself to a watch-glass, there was at the summit of a large oval inflation, which varied its form remarkably within a very short time, a single osculum, which opened or closed in accordance with the necessities of the animal, and from which when in full action a powerful stream of water was poured forth. The inhalation of the water by the porous system presented some remarkable peculiarities. When in a state of repose the dermal membrane appeared to be completely imperforate, but when about to commence vigorous inhalant action, a slight perforation appeared here and there over its surface, the orifices gradually increased in size until the full diameter of the pores was attained, and their margin then became thickened and rounded. And if a little indigo be infused in the water, it is seen to be absorbed with avidity, and the inhalant action continued for a considerable period, the interior of the sponge becoming strongly coloured by the indigo. After a time the rapid inhalant process ceased, either abruptly or gradually, and a very languid action only remained, and nearly the whole of the pores were closed; when this operation was about to take place, the rounded margin of the orifice lost its form and became thin and sharp, and the circumference gradually melted inwards until the orifice was entirely closed, and not the slightest indication of the organ previously existing remained,—the operation of closing occupying rather less than a minute. When once closed these orifices do not appear to be re-opened, but fresh pores are produced in accordance with the necessities of the animal. The colouring matter absorbed during the period of active inhalation was apparent in the sponge from twelve to eighteen hours, and during this period the stream from the osculum when partially expanded was extremely languid. The author concluded by observing, that the structure and habits of the fresh-water sponges were in perfect accordance with those of the marine species.

NOTES OF A VISIT TO MITCHELSTOWN CAVES. BY E. PERCIVAL WRIGHT, ESQ.

In company with Mr. Halliday, Mr. Wright, in the early part of August, 1857, explored the extensive limestone caverns situated in the valley of Mitchelstown, between the Galtee and the Knockmildown ranges of mountains; the object of his visit being to examine whether any of the curious blind animals, so well known as inhabiting the Carniola and other caves, would be found in Ireland. Mr. E. Percival Wright gave a brief sketch of the geology of the district, of the various blind insects found on the continent and described by Schiodte, and of the Mitchelstown cave, and then stated that in the interior of the cave, and near some small pools of water formed by the dropping from the roof, specimens of a small white Lipura were discovered. This insect comes very near to the species figured by Schiodte, found in Adellesburg Cave; but on a very careful examination by Mr. Halliday many differences were detected, more particularly the total absence of ocelli, fourteen of which are figured by Schiodte on each side of the head of his Lipura; but not a trace of ocelli was found in the Mitchelstown Cave specimens. Schiodte's Lipura, as well as another species of the family (certainly blind), *Tritomuras scutellatus*, had both been ascertained to have an extensive range in the caves of the Austrian territory, and it did not seem so improbable that they should occur in similar situations even in these islands

The Rev. Mr. Higgins inquired if it were Mr. Halliday's conviction that the blind insects found in these caves were truly species, or not rather insects which had strayed from the light, and, being confined in these caves, lost an organ which was no longer of any use to them.

Mr. Halliday replied, that these animals possessed other organs besides eyes which distinguished them as species; and there could be no doubt they had been created for the special circumstances in which they were found.

Dr. Harvey remarked on the curious fact of many of these caves containing species peculiar to themselves. The same limited distribution of species was found in many other forms of animals. Thus many of the Unios (Mollusca) of the rivers of America were peculiar to the one river in which they were found.

A LIVING LOCUST (GRYLLUS MIGRATORIUS).

The President of the Association exhibited to the Section a living locust, which had been taken in the grounds of Trinity College, Dublin, a few minutes previously.

Mr. Halliday stated that this was the *Gryllus migratorius*, the common locust. It was abundant in the East, where it produced great destruction, especially on the borders of the Mediterranean. It was fortunately only an occasional and not a very common visitor in this country. It is eaten by the Arabs. Two different species from this occurred in the interior of Asia and America. When they arrive in this country they do not breed here.

ON THE EMBRYO STATE OF PALINURUS VULGARIS. BY MR. R. Q. COUCH.

The metamorphoses of the decapod crustaceans may now be considered as established by observation made in every part of the world. The first announcement of the discovery came from Ireland, from experiments made near Cork by the late Mr. J. V. Thomson. The form under which the young decapods first appeared was announced as belonging to the genus *Zoea*, and all subsequently public observations have confirmed this. But in *Palinurus vulgaris* there is an important exception. Mr. Couch has during the past summer again investigated the point, and has bred many thousands in confinement, and has under the microscope seen them escaping *ex ovo*. The young of *Palinurus vulgaris* differs from every other species with which he is acquainted. On escaping *ex ovo* the different parts are very obscure, from being so closely folded together. But in a few minutes they are sufficiently spread out to become recognisable by a moderate magnifying power. The carapace is globularly oval, and slightly pointed or produced both at the anterior and posterior margin, and is also slightly contracted anteriorly so as to give the appearance of a rostrum. The abdomen is moderately long, and from four of the six annulations of which it is formed arise eight pairs of tendril-like appendages. The lateral margin of each ring is expanded into a thin projecting process, from which the articulated appendages arise. These tendrils are long, slender, and dichotomous. Their double character commences at the third joint, and afterwards they are nearly of equal length, and

are covered with strongly marked spines, termination pointed. The caudal extremity is simple, contracted, pointed, and somewhat oval. On the centre of the rostrum is a dark spot. The eyes are on enormously long and stoutly club-shaped peduncles, which are attached by very narrow and slender points. The pedunculated eyes are about two-thirds as long as the carapace. The contrast between the present species and that of others is very great. In them the eyes are sessile, in this enormously pedunculated; in them the feet are beneath the carapace, in this they are attached to what, for clearness, he calls the abdominal rings. Mr. Couch would place it in *Phyllosoma* of Milne-Edwards, belonging to the Stomapodes.

ON THE LOTUS OR SACRED BEAN OF INDIA. BY DR. BUIST.

This plant belongs to the natural order Nelumbiaceæ, and is allied to the water lilies, and is the *Nelumbium speciosum* of botanists. Dr. Buist states that there are three species of this genus at least. The only variety he had observed in India was one with pale rose-coloured flowers, which when full blown, but not open, formed a globe of from six to seven inches in diameter. The leaf is from fourteen to sixteen inches long, the leaf and flower stalks together from six to eight feet in length. The leaf and flower stalks abound in spiral vessels, which Dr. Wright says are extracted and burnt by the Hindús in the lamps placed before the shrines of their gods. Dr. Buist, however, states his conviction that all the spirals of all the lotuses of India, from the Himalayas to the Line, would not make a lamp-wick a yard long of the thickness of the finger. The stalks are full of air, the leaves buoyant and floating, the flowers small, like the Tonquin bean. After describing the external appearance and uses of the plant, the author proceeded to describe—1. *The internal structure of the root, flower, and leaf-stems.* The stalks are filled with air, and in their construction care is taken to prevent the percolation or introduction of water. 2. *Repulsion of water from the leaves.* This depends upon the surface of the leaves being covered with a fine fur of silvery hair, like papillæ, which, when magnified, show themselves in the form of a succession of beads, diminishing in size towards the apex. It is this structure which entangles and retains the air, and thus obtains a high degree of buoyancy. It is the same structure which enables the rose, clover, and young cabbage-leaves, young shoots of grain and grass to exhibit the pearly forms of dew-drops, and to repel water from their surface. The same structure performs the same function in the wings of diving birds. 3. *Respiration of the lotus.* The lotus leaves constantly give out air from their surface, which Dr. Buist has not examined. He found that one plant gave out from a cut stem 33 cubic inches of air in an hour. The greatest quantity of this air was given off two hours after sunrise.

Section of Geography and Ethnology.

ON THE MACROCEPHALI. BY DR. MINCHIN.

The statements of Hippocrates regarding a tribe of men whose heads presented an altogether different cranial outline from those of the ancient Greeks presented much difficulty when compared with the writings of Strabo, Pliny, and others, upon the subject. In 1850, Dr. Cecil Meyer said that up to that period only three macrocephalic heads were known, viz., one found by Rathke, another by Baron Asch, and the third by Rudolph Wagner. From Hippocrates, it appeared that no other race of men had heads like the macrocepali: that their cranial elongation arose from artificial compression by means of bandages, etc.; that in the course of time Nature took the matter into her own hands, so that bandages had nothing to do with it: that those men who had the longest heads were considered the most noble, and that after a certain time these usages fell into disuse, owing to intercourse with other men. Dr. Minchin then described the three skulls alluded to by Meyer, as the only specimens of the macrocephalic shape. He then referred to the description by Strabo of the shape of the long head. He said: "The long head is necessitated by ossification of the sagittal suture. The closure of this suture is for the most part perfect, and is felt through the integuments in the form of an elevated ridge." He then proceeded to describe a boy then living in Berlin, whose head was a perfect example of this formation. Dr. Minchin then proceeded to review the statements of Strabo and others as to the macrocephali, and argued that it was highly improbable that the form of head which they undoubtedly possessed could be caused by the use of compression in youth, for notwithstanding the prevalence of skull compression in different parts of the globe, yet in no place had travellers found that the overhanging forehead for which the macrocephali were distinguished, was caused by the use of bandages. He then expressed it as his opinion that the macrocephalic head was not the result of compression, but was a peculiarity which existed from birth. That shape, which may have been originally produced by artificial means, became afterwards not only hereditary, but absolutely congenital. This skull should not be considered a type of a series, of which the individuals were characterised by the following features:—Smallness of biparietal measurement, great antero-posterior elongation, frontal region overhanging the face, and congenital absence of the sagittal suture, this last being the determining cause of which all other characters were the distinguishing results. To the present day numerous instances of this conformation were found. He himself first noticed these peculiar radiating lines which indicated a central ossific origin of the os bregmatis. Every day fresh instances were springing up which showed this remarkable shape of head was not the exponent of physical degeneracy.

ON THE INFLUENCE OF THE GULF STREAM ON THE CLIMATE OF IRELAND. BY PROFESSOR HENNESSY.

Professor Hennessy showed on a large map of the British Isles the isothermal lines, or lines indicating the equal degrees of temperature; and these ran, not horizontally in the direction of the parallels of latitude, as might be expected, but in curves almost concentric, and following very nearly the windings of the coast. These curves were laid down from the results of a long series of observations on the climate and temperature, by Dr. Lloyd, the President of the Association; and one of these results, founded on a series of both day and night observations, was, that the mean temperature of the sea off the west coast of Ireland was four degrees higher than the main temperature of the land. All these facts were easily explained by the phenomenon of the Gulf Stream, or warm current of water, which, as was well known to navigators, flowed from the Gulf of Mexico in the direction of this country and the north-west coast of Europe. That current of water, heated in the warm regions where it commenced, exercised its influence very sensibly on the atmosphere, raising its temperature, and charging it with vapours, which were known to give out a certain amount of heat. In Mr. Wilde's historical *Report on the Diseases and Cosmical Phenomena of Ireland*, presented with the Census returns, they read of several extreme changes of temperature having taken place in remote ages in this country; and those might have been caused by the temporary deflexion or deprivation of the Gulf Stream, arising from some perturbation in the tropical regions, and leaving this country for the moment in the same position it would be in if no gulf-current existed.

Section of Mechanical Science.

REPORT ON THE DEVELOPMENT OF HEAT IN AGITATED WATER. BY MR. G. RENNIE.

Mr. Rennie, in alluding to his former papers on the subject, read before the section last year, at Cheltenham, stated that the subject of the mechanical or dynamic force required to raise a given quantity of water one degree of Fahrenheit had long been the object of the research of philosophers, ever since Count Rumford, in his celebrated experiments on the evolution of heat in boring guns when surrounded by ice or water, proved the power required to raise one pound of water one degree, and which he valued at the dynamic equivalent of 1,034 lb. M. Moya was the first who announced that heat was evolved from agitated water. The second was Mr. Joule, who announced that heat was evolved by water passing through narrow tubes, and by this method each degree of heat required for its evolution a mechanical force of 770 lb. Subsequently in 1845 and 1857, he arrived at a dynamical equivalent of 772 lb. These experiments had since been confirmed by other philosophers on the continent. In the present paper, Mr. Rennie stated that his attention was called to the subject by observing the evolution of heat by the sea in a storm, by the heat from water running in sluices. He, therefore, prepared an apparatus similar to a patent churn. In the first case he experimented on fifty gallons, or 500 lb. of water, inclosed in a cubical box, and driven by a steam engine instead of a weight falling from a given height, as in Mr. Joule's experiment; secondly, on a smaller scale, by 10 lb. of water inclosed in a box. The large machine or churn was driven at a slow velocity of eighty-eight revolutions per minute, and the smaller machine at the rate of 232 revolutions per minute, so that the heat given off by the water in the large box was only at the rate of three and a half degrees per hour, including the heat lost by radiation; whereas the heat evolved by the ten gallons of water

contained in the small box agitated at 232 evolutions was fifty-six degrees Fahrenheit per hour. Thus the temperature of the water in the large box was raised from sixty degrees to 144 degrees, and the temperature of the water in the small box to boiling point. As an illustration, an egg was boiled hard in six minutes.

Section of Mathematical and Physical Science.

ON A LAW OF TEMPERATURE DEPENDING UPON LUNAR INFLUENCE. BY MR. J. P. HARRISON.

The author commenced by saying that, although the question of lunar influence on the atmosphere of our planet was very generally considered as set at rest by the investigations of M. Arago, yet he felt very confident that he was in a position to prove the law he was now about to announce without fear of contradiction. He had reduced and thrown into the form of tables and of curves 280 lunations, with the corresponding mean temperatures; and the laws at which he had arrived were, first, between the first and second octant the temperature immediately after the first quarter, both on the average and also, with rare exceptions, in each individual lunation is higher than the temperature shortly before the first quarter; secondly, and more particularly the mean temperature of the annual means of the second day after the first quarter (or the tenth day of the moon's age) is always higher than that of the third day before the first quarter (or the fifth day of the lunation). The tables and curves accompanied the essay, which illustrated these laws at great length.

ON THE ELECTRO-DYNAMIC INDUCTION MACHINE. BY THE REV. PROFESSOR CALLAN.

After stating that he had discovered the induction coil in 1836, that in 1837 he had devised an instrument for getting a rapid succession of electrical currents from the coil, and that thus he had completed the coil in 1837, as a machine by which a regular supply of electricity might be furnished, he said that he would lay before the Association the results of a long series of experiments on the induction machine. The first of these results is a means of getting a shock directly from the armature of a magnet at the moment of its demagnetisation, by using, not a solid piece of iron, but a coil of very fine insulated iron for the armature of an electro-magnet, between the poles of which the coil would fit. When the helix of the magnet is connected with a battery, the armature is magnetised on account of its proximity to the magnetised iron; and when the battery connexion is broken, if the ends of the insulated iron wire be held in the hands, a shock will be felt. The second result is the discovery of the fact, that if iron wires be put into a coil of covered copper wire, the ends of which are connected with a battery, and if another coil be connected with the same battery, the quantity of electricity which will flow through the latter will be greater when the first coil is filled with iron wires than when they are removed. The third result is, a core for the primary coil, which consists of a coil of insulated iron wire, and which has five advantages over all the cores in common use. First, there is no complete circuit for any electrical current excited in any section of the core, because all the spirals of the coil are insulated from each other, and no spiral returns to itself. In the common cores, even when the wires are covered with thread, there is a complete circuit for every current induced in each section of every wire. Secondly, the currents in the various sections of the iron do not oppose each other; but the currents in each section of every wire are opposed by the currents flowing in the surrounding wires. Thirdly, in the iron coil all the currents in the various spirals flow in the same direction, and form one strong current, which may be used by connecting the ends of the coil with any body to which we wish to apply its force. But in the common cores all the currents in the sections of each wire remain within the wires, and cannot be used. Fourthly, the effect of the condenser on the currents produced in the iron core can be ascertained when an iron coil is used, but not with the common cores. By using an iron coil as a core, it is found that the condenser increases the intensity of the currents induced in the core. Fifthly, the ends of the iron coil, used as a core, may be connected with the coatings of a Leyden jar, and then the sparks from the coil are diminished in length, but increased in brightness. By the use of cores consisting of coils of insulated iron wires, electrical currents of considerable quantity and intensity may be obtained. These currents of quantity and intensity may answer for working the Atlantic telegraph, and for producing the electric light. Besides the cores just described, and the common core, Professor Callan used three other kinds of cores: viz., a flat or elliptical bundle of wires; a core made by coiling uninsulated iron wire on an iron bar; and a core consisting partly of a bundle of iron wire, and partly of a coil of insulated iron wire. The fourth result of his experiments is a new mode of insulation, in which imperfect insulation is used when imperfect insulation is sufficient, and perfect insulation is employed where such insulation is required. The advantage of this mode of insulation is, that each spiral in the secondary coil is brought nearer to the other spirals, as well as to the primary coil and core, than it can be in the common method of insulation, without at all diminishing the efficiency of the insulation. A coil in which the secondary wire was iron, and insulated in the manner described, was shown to the meeting, which, with a single cell, six inches by four, gave sparks half an inch long without a condenser. The insulation of the large condensers made by Professor Callan, in which the acting metallic surface of each plate exceeded 600 square feet, gave way before the coil which he exhibited was made; and, therefore, he could not say what the length of the sparks would be with the aid of a condenser. But were a condenser of the proper size to have the effect of increasing the sparks in a thirty-fold ratio, as in M. Gassiot's great coil, the length of the sparks produced by Professor Callan's coil with a single cell should be fifteen inches. The outer diameter of the coil was about four inches, its length twenty inches, and the length of the secondary coil about 21,000 feet. The fifth result is, a contact-breaker in which the striking parts are copper, and which acts as well as if they were platina. The sixth result is a mere explanation of the condenser, which is confirmed by the effect of the condenser on the electrical currents produced in the core. The last result consists in the discovery of some new facts relating to the condenser, from some of which it follows, that the ordinary mode of making the condenser is defective; for condensers are generally made so that the entire surface of each of the metallic plates must act. But the condenser for every coil should be constructed in such a way that a small, or a considerable part, or the whole of the surface of each plate may be applied to the coil. For a large condenser which would make the effect of a coil excited by a single cell less than it would be without a condenser, will increase the effect of the same coil when it is connected with a battery of 10 or 12 cells.

Professor W. B. Rogers gave a brief account of the construction and effects of a very powerful induction apparatus, devised by Mr. E. S. Ritchie, of Boston, United States. In this the secondary coil is formed by winding the wire in such manner as to make a series of flat spirals, having each the thickness of a single wire, and thus building up the coil by thin transverse strata. The primary coil is covered by a gutta-percha tube, and this by a closely fitting bell glass, knobbed at the upper end, and having a widely expanded lip below. Over the whole is placed the secondary coil. By this arrangement the discharge between the core and the secondary coil is effectually prevented. Very perfect means are used for preventing any discharge within the secondary coil, between its different parts. With a secondary coil of 30,000 feet of wire, No. 34, and using one Bunsen cell, this apparatus gives a spark six inches in length. When the coil is increased to 50,000 or 60,000 feet and four cells are used, the spark is lengthened to upwards of ten inches, and has been passed continuously through an interval of 10¾ inches. The primary coil is formed of No. 9 wire, and about eighty feet in length. The condenser, made of tin-foil separated by oiled silk, has a surface in this larger apparatus of about thirty feet. Professor Rogers referred to the very superb phenomena produced by the passage of the current through an exhausted tube of great length and diameter, and those exhibited by the beautiful arrangement known as Gassiot's Cascade, which, with other phenomena of electrical light, were developed by this apparatus with a splendour perhaps never before equalled.

ON IMPROVEMENTS IN GROVE'S BATTERY. BY PROFESSOR G. J. STONEY.

In the ordinary Grove's battery, if any accident occur to any one cell or plate, it cannot be removed from the battery without taking down, cell by cell, the whole system that precedes it. Much inconvenience, also, is experienced from the fuming of the acids when the operator has finished his day's work, and in taking the plates in the ordinary manner each out of its place and dipping it into water. In the improvement which Professor Stoney has devised, stout iron wires are bent into the form To 1 and 2 plates of zinc are soldered, and to 3 a plate $\frac{123}{}$ of platina, and so on with each of the rest of the elements. He had feared there would be much difficulty in sol-

dering the platina plate to the bend of the iron wire 3, but it was found not to be so, as upon dipping the iron into chloride of zinc and then laying the platina plate against it, it was found that the soldering iron, with a small globule of solder, made a perfect joint along the entire extent. To prevent any chance contact of the wire 3 with 1 or 2 of the next element, a little cylinder of gutta-percha was put over each of these wires 3 which carried the platina plate. In putting the elements of the battery together, the platina plate 3 of each element was simply inserted between 1 and 2 of the next element, and so on throughout, and each element was then perfectly distinct from every other, and could be taken out or put in, or the cells belonging to it re-arranged as to charge of acids or otherwise, as occasion might arise, without interfering with the rest. When it is desired to stop work, the whole of these ∽ formed wires, with the zinc and platina plates attached to them, are lifted together out of their cells by an oblong mahogany frame, one side of which slides in a groove, so that the sides at first are at a sufficient distance to go over the entire system of ∽'s, one side of the frame is then brought under one line of the bends of the wires, and the moveable side is then pushed in so as to come under the bends on the opposite side; the entire frame is then lifted with all the plates at once, and they are all plunged together into a trough of water placed near. Thus the fuming is almost entirely avoided.

Medical News.

BIRTHS, MARRIAGES, DEATHS, AND APPOINTMENTS.

In these lists, an asterisk is prefixed to the names of Members of the Association.

BIRTHS.

Fox. On September 20th, at Berkeley Square, Bristol, the wife of *Edward Long Fox, M.D., of a daughter.

Hogg. On September 22nd, at 14, Finsbury Place South, the wife of Charles Hogg, Esq., Surgeon, of a son.

Izod. On September 21st, at Mortimer, near Reading, the wife of Freeman Izod, Esq., Surgeon, of a daughter.

Neale. On September 21st, at 18, Westbourne Terrace, Eaton Square, the wife of W. M. Neale, Esq., Surgeon, of a son.

Nichol. On September 18th, at Denmark Hill, Surrey, the wife of R. Nichol, M.D., of a son.

Valpy. On September 20th, at 9, Bedford Street, Bedford Square, the wife of William Henry Valpy, Esq., Surgeon, of a daughter.

MARRIAGES.

Bowen—Norris. Bowen, Simon Surman, M.D., of Tewkesbury, to Charlotte Mary, second daughter of Henry Norris, Esq., of Charmouth, on September 12th.

Fotherby—Ewen. Fotherby, Henry J., M.B., of Trinity Square, London, to Marie Jane, eldest daughter of *Henry Ewen, Esq., F.R.C.S., at Sutton St. Mary, Lincolnshire, on September 17th.

Hester—Morland. *Hester, James Torry, Esq., Surgeon to the Radcliffe Infirmary, Oxford, to Ellen, youngest daughter of the late Benjamin Morland, Esq., at Shebbington, Bucks, on September 22nd.

Humpage—Dickson. Humpage, Edward, Esq., Surgeon, of Well Street, Hackney, to Janet Emma, eldest daughter of the late James Dickson, Esq., of Hamilton Place, New Road, at Hackney, on September 22nd.

Jones—Meikleham. Jones, Richard Francis, Esq., of Liverpool, to Euphrasia Oriana, daughter of the late William Meikleham, M.D., of La Pique, Trinidad, at Dunfermline, on September 16th.

La Fargue—Cobb. La Fargue, George F. H., Esq., Surgeon, Husbands Bosworth, Leicestershire, to Gertrude, daughter of Thomas Cobb, Esq., of New Romney, Kent, at New Romney, on September 15th.

Lloyd—Williams. Lloyd, Edward, M.D., of Suffolk Place, Pall Mall, and Ty-yn-y-Rhyl, Flintshire, to Matilda Susanna, widow of the late W. Williams, Esq., of Aberpergurn, Glamorganshire, at St. George's, Hanover Square, on September 17th.

May—Lowe. May, Thomas, Esq., of Durdlam Down, Bristol, to Charlotte, widow of the late *Edward William Lowe, Esq., Surgeon, of Congleton, Cheshire, at Plymouth, on September 17th.

Walton—Walker. Walton, James Edwin, Esq., to Emma Elizabeth, only daughter of the late B. G. Walker, M.D., of Colchester, at Islington, on September 15th.

DEATHS.

Anderson. On September 20th, at Albion Street, Hyde Park, Jane, Lady Alderson, widow of the late Sir James E. Anderson, M.D., aged 62.

Bowling, John Pierce, Esq., Assistant-Surgeon 56th Regiment Bengal Native Infantry, youngest and last surviving son of the late *John Bowling, Esq., of Hammersmith, killed at Cawnpore, on June 27th: also, supposed to have fallen about the same time, Charlotte, wife of the above J. P. Bowling, Esq.; and William Kinsey, their infant son.

Carpenter. On September 19th, at Amersham, aged 7 weeks, Harry, infant son of W. G. Carpenter, Esq., F.R.C.S.

Garner, Heartwell, M.D., 12th Irregular Cavalry, massacred at Segowlie, on July 23rd: also, at same time and place, Susan, wife of the above Dr. Garner; and one of their children.

Hall. On September 16th, at Exeter, Charlotte Cotton, wife of William Hall, M.D.

PASS LISTS.

Apothecaries' Hall. Members admitted on Thursday, September 17th, 1857:—

Harris, Alfred Hunt, Butterfield
Smyth, David, Brighouse, Yorkshire

HEALTH OF LONDON:—WEEK ENDING SEPTEMBER 19TH, 1857.

[From the Registrar-General's Report.]

After the summer heat, and when the conditions that attend it, and that are so fatal to children, are to some extent removed, London begins to enjoy a period of health, in which the mortality is usually lower than at any other time of the year, except the months of May and June. In conformity with this rule, the deaths which were previously above 1000, and in July rose above 1200, fell in the week that ended on Saturday (September 19th) to 946. It is further to be observed, that though diarrhœa continues to exhibit more than its ordinary degree of prevalence, the health of the population generally appears to be better than it usually is in the third week of September, for if the weekly deaths from cholera at two epidemic seasons be withdrawn from the calculation, it will be found that nearly 200 persons survived last week, who would have died if the average rate of mortality, as derived from corresponding weeks in ten previous years, had prevailed.

The number of children born last week exceeded that of persons of all ages who died, by 776.

The fatal cases of diarrhœa now decline more rapidly, as will be seen from the numbers returned during the last five weeks, which were: 215, 198, 181, 144, and (last week) 111. Only three deaths, two of which were those of children, are referred to cholera; eight to dysentery. Small-pox was fatal to only two children; measles to 19, of whom 13 died in the central and east districts; scarlatina to 39, of whom 26 died in the same districts. The deaths from typhus and common fever are 53. Nineteen persons died of cancer, six of hernia, two of diabetes, ten women from diseases incidental to child-bearing, one of whom, a young woman of 18, died from puerperal convulsions, in consequence of excessive joy; a girl, of 2 years, died from mumps; a house painter from painter's colic; a girl who had lived ten years with spina bifida; one person from carbuncle; three from delirium tremens; and one from intemperance. Two widows died at the ages respectively of 91 and 92 years, the oldest persons in the return of the week.

Last week the births of 883 boys and 839 girls, in all 1722 children, were registered in London. In the ten corresponding weeks of the years 1847-56, the average number was 1445.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 30·041 in. The mean daily reading was above 30 in. on the last five days. The greatest barometric pressure was 30·24 in., on Saturday. The mean temperature of the week was 62·1°, which is 5·6° above the average of the same week in 43 years (as determined by Mr. Glaisher). The mean temperature was above the average on every day of the week, and on Wednesday and Thursday the excess was about 10°. On the latter day, the highest point of the thermometer in the shade was attained, viz., 80·7°; the

lowest point was 48·9°, and was obtained on Saturday. The whole range of the week was therefore 31·8°. The mean dew-point temperature was 57·9°; and the difference between this and the mean air temperature was 4·2°. On Thursday, the thermometer in the sun rose to 104·8°. The wind was nearly always in the south-west, till Friday afternoon, when it changed to north-east. There was rain to the depth of 0·25 in., on Monday; none on any other day.

Queen's College, Birmingham. The Examiners for honours in the respective departments of this College have declared the following awards:—The Degree of Bachelor of Civil Engineering (B.C.E.), which the Council, under Royal Charter, is empowered to confer—Tuxford, Boston. The Warneford Theological Scholarships, four in number, £10 each, to be conferred upon students "who have resided in College not less than three terms, and who shall, in the judgment of the Council, be most deserving"—Robinson, Godson, and Hill. The Warneford Medical Scholarships, "£10 each, to be held for two years, to be conferred upon students who have resided in the College at least twelve months, who have been distinguished for their diligence and good conduct, and who have been regular in their attendance on Divine service in the College Chapel"—Harris, Reading; and Abbey, Wellingborough. The Warneford Gold Medal, value £20, for an essay on an anatomical, physiological, or pathological subject, to be handled in a practical or professional manner, and according to those evidences of facts and phenomena which anatomy, physiology, and pathology, so abundantly supply, but always and especially with a view to exemplify or set forth by instance or example "the wisdom, power, and goodness of God," as revealed and declared in Holy Writ; subject, "The Anatomy and Physiology of the Kidney"—Mould, Tutbury. The Principal Booth's Prize, 10 guineas annually (books), to be adjudged to the best clinical, medical, student, alternately in the College, by the majority of the hospital physicians and surgeons, æquales—Mould, Tutbury, and Wilders, Birmingham. The Baron Webster Prize, 5 guineas annually (books), for proficiency in the French language—Holland. The Clay Prize, 5 guineas annually (books), for Prize Essay; subject, "The Anatomy, Physiology, and Pathology of the Placenta"—Lloyd, Birmingham.

The following prizes have also been awarded:—*Anatomy*—Bracey (medal); Dunn (certificate). *Physiology*—Senior Class—Mould (medal); Bracey (certificate); Junior Class—Lloyd (medal); Herbert (certificate). *Practical Anatomy*—Dunn (books); Bracey (certificate). *Chemistry*—Mould (medal); Bracey (certificate). *Materia Medica*—Herbert (medal); Lloyd) certificate). *Medicine*—Wilders (medal); Mould (certificate). *Surgery*—Mould (medal); Jordan (certificate). *Forensic Medicine*—Wilders (medal); Mould (certificate). *Midwifery*—Mould (medal); Lloyd (certificate). *Botany*—Cornbill (medal); White (certificate). *Heslop Stethoscopic Prize*—Wilders (books). *Clinical Prize*—Mould (medal); Wilders (certificate). The public distribution will take place in the College Theatre, by the Principal, Dr. Booth, on the 2nd of October next, when an address on "Middle Class Education" will be delivered by him.

Anæsthetic Substances. Our readers may recollect that a few months ago amylene was recommended as preferable to ether and chloroform in producing stupefaction or anæsthesia, on the special ground that its employment was unattended with danger to the patient, or nearly so. MM. Foucher and Bonnet have, however, in a recent communication, addressed to the Academy of Sciences, recorded facts leading to quite a contrary result. In twelve experiments performed on rabbits they have ascertained that the anæsthetic effect of amylene is produced within three and six minutes after its application. Before stupefaction is produced the animal utters piercing cries, and throws its head backwards; its breathing is accelerated, the globe of the eye is strongly injected and moves convulsively; a tracheal hoarseness always accompanying the above symptoms. The period of insensibility does not last long if the application of amylene be not continued; in the contrary case, however, a complete collapse takes place; the animal, stretched out without motion, obeys every impulse of the hand, and resembles a flabby mass, in which breathing is hardly perceptible. This state may last twenty minutes without causing death. The blood drawn from the arteries during this period still preserves its usual colour. Animals subjected to the action of amylene for a certain length of time continue after the operation in a state of stupor and imbecility, which sometimes lasts seven or eight hours; but in none of the cases observed by the authors of the communication has death followed the application of amylene. The conclusions resulting from their experiments are as follows:—1. Sulphuric ether, chloroform, and amylene are, of all volatile substances experimented on, the only ones that produce anæsthesia. 2. Amylene does not produce stupefaction unless the quantity of air with which it is diluted be very small; but then it acts upon the animal economy, and especially upon the respiratory organs in a manner which may produce dangerous effects. 3. Chloroform has all the advantages of amylene, without the evils which accompany the use of the latter. 4. None of the substances above mentioned produce anæsthesia, whether local or general, when applied to any peculiar part of the body by injection under the skin. (*Galignani's Messenger.*)

A New Food for Bees. Two agriculturists of the Department of the Var observed one day, in the month of May last, that all their bees had left their hives, although the latter were well filled and exceedingly heavy. Towards evening the fugitives returned heavily laden, but on the following morning set out again in a direction which was this time carefully noted by the farmers, who had been watching their doings. They immediately followed them, and soon arrived at a farm where cakes of tilseed, which had been previously subjected to the oil press, were being beaten up into a paste with water, to be used as manure for potatoes. There, to their surprise, they saw their bees clustering round the tubs containing the paste, evidently enjoying a luxury hitherto unknown to them. The lesson was not lost upon the agriculturists, who immediately procured their bees abundance of this food, and have now been rewarded with nearly ten times the usual quantity of produce, besides an immense increase in the reproduction of the insect.

Exploration of Africa. The exploring expedition to the river Niger and its tributaries, in charge of Dr. Baikie, R.N., left the Brass River for the Niger on the 10th of July, all well. The expedition is composed of fifty Kroomen, twenty-five natives of the countries bordering on the Niger and Chadda, and fourteen Europeans, including Dr. Baikie, Lieutenant Glover, Mr. May, and Dr. Davis of the Royal Navy, a naturalist and a botanist from Kew Gardens, with Captain Grant and engineers in the employ of the contractor, Mr. Macgregor Laird. It is said to be the intention of Mr. Laird to form trading posts on the banks of the river, at the most eligible situations for the collection of cotton, shea, butter, and other productions of the interior, provided the climate offers no insuperable obstacles. As by this contract with the Admiralty he is bound to convey deck passengers of the negro race who can read and write English from Fernando Po to all parts below the Niger and Chadda, it is hoped that a new element of civilisation will be introduced into the interior by the return of liberated Africans to their native country in considerable numbers.

Importation of Bones. We a few days ago stated that the brig *Leopoldine*, with a cargo of bones, had been restrained from discharging in consequence of an order in Council of the 27th ult. A reply to a memorial on the subject has since been received from the Privy Council, directing the Board of Customs "to permit the importation of all bones which were shipped, or in course of shipment, or ordered, or contracted for, previously to the said order in Council." The cargo in question has therefore been discharged. (*Northern Daily Express.*)

The Cholera. The *Daily News* states that the cholera has broken out at Hamburgh. Between the 29th of August and the 6th of September there were 239 cases, of which 136 proved fatal.

Army Hospital Corps. A warrant has just been issued from the Horse Guards for the formation of a new corps, to be designated "the army hospital corps"; and when sufficiently organised and in efficient working, it is expected the present "medical staff corps" will be broken up. It is to be formed of soldiers of the line—sergeant-majors, company sergeants, sergeants, and privates—whose pay, according to rank, will be 4*s*., 3*s*., 2*s*., and 1*s*. a-day, irrespective of rations and messing, which are to be supplied free of charge.

TO CORRESPONDENTS.

POSTAGE OF MANUSCRIPT AND PRINTED MATTER.

Any amount of manuscript or printed matter, singly or together, provided it contains nothing in the form of a letter, is transmitted through the post, in packets *open at the ends*, at the following rates: not exceeding 4 ounces, one penny; above 4 and not exceeding 8 ounces, twopence; above 8 ounces and not exceeding 1 pound, fourpence; for every additional half-pound or under, twopence.

To CONTRIBUTORS. The Editor would feel glad if Members of the Association and others, would cooperate with him in establishing as a rule, that in future no paper for publication shall exceed two pages of the Journal in length. If the writers of long communications knew as well as the Editor does, that lengthy papers *always* deter the reader from commencing them, this great evil would never arise. Brevity is the soul of medical writing—still more than of wit.

ANONYMOUS CORRESPONDENTS should always enclose their names to the Editor; not for publication, but in token of good faith. No attention can be paid to communications not thus authenticated.

Members should remember that corrections for the current week's JOURNAL should not arrive later than Wednesday.

NOTICE.—DR. WYNTER will feel obliged if the Associates will address all Post Office Orders in payment of Subscriptions, to the Publisher, MR. THOMAS JOHN HONEYMAN, 37, Great Queen Street, Lincoln's Inn Fields, London, W. C., "Bloomsbury Branch"; and he would also feel obliged by their sending all communications respecting the non-receipt of the Journal, to the same address; as both these matters are out of the province of the Editor.

Communications have been received from:—MR. H. EWEN; MR. H. TERRY, JUNR.; DR. COOKWORTHY; THE PRESIDENT AND TREASURER OF ST. THOMAS'S HOSPITAL; MR. SANDS COX; DR. T. HERBERT BARKER; DR. COCKLE; MR. T. HOLMES; DR. G. GODDARD ROGERS; DR. H. W. FULLER; MR. W. H. COOKE; DR. GIBB; DR. PRUEN (Penang); MR. H. W. R. DAVEY; MR. W. BRIGHAM; DR. J. R. BENNETT; MR. CUSACK; MR. R. WYNNE JONES; and DR. J. G. SWAYNE.

BOOKS RECEIVED.

[** An Asterisk is prefixed to the names of Members of the Association.*]

1. The Science and Art of Surgery: being a Treatise on Surgical Injuries, Diseases, and Operations. By *John Erichsen, Esq., Professor of Surgery and Clinical Surgery in University College, and Surgeon to University College Hospital. Second Edition, enlarged and carefully revised. Illustrated by 400 engravings on wood. London: Walton and Maberly. 1857.
2. England and France before Sebastopol, looked at from a Medical Point of View. By Charles Bryce, M.D. London: John Churchill. 1857.
3. A Speech on Medical Reform, delivered by Lord Elcho, M.P., in the House of Commons, July 1, 1857, on the Second Reading of the Medical Profession Bill (No. 1). With Appendix. Pamphlet. London: T. Hatchard. 1857.
4. Observations on the Human Crania contained in the Museum of the Army Medical Department, Fort Pitt, Chatham. By George Williamson, M.D., Staff-Surgeon Second Class. Dublin: McGlashan and Gill. 1857.

ADVERTISEMENTS.

Sydenham Society.--Notice is hereby given, that a SPECIAL GENERAL MEETING of the Sydenham Society will be held at the Society's Rooms, 45, Frith Street, Soho, on Monday, the 5th day of October, at 8 o'clock, p.m., with a view of determining on the propriety of dissolving the Society, or of adopting such other measures as may appear most expedient.

By order of the Council.

Sept. 25, 1857. JAS. R. BENNETT, M.D., Secretary.

N.B. The first Volume of KÜCHENMEISTER on Animal and Vegetable Parasites is now in course of distribution.

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TO ADVERTISERS.

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